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MIDWATER FISH DATA REPORT: COLD CORE RINGS TIME SERIES CRUISES --ETC(U)
MAR 80 R H BACKUS, J E CRADDOCK N00014-79-C-0071
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER WH01-80-18	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) MIDWATER FISH DATA REPORT: COLD CORE BINGS TIME SERIES CRUISES KNORR 62, 65, AND 71 AND ENDEAVOR 11.		5. TYPE OF REPORT & PERIOD COVERED Technical <i>rept.</i>
7. AUTHOR(s) Richard H. Backus and James E. Craddock		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Woods Hole Oceanographic Institution Woods Hole, MA 02543		8. CONTRACT OR GRANT NUMBER(s) N00014-79-C-0071
11. CONTROLLING OFFICE NAME AND ADDRESS NORDA National Space Technology Laboratory Bay St. Louis, MS 39529		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR 083-004
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE March 1980
		13. NUMBER OF PAGES 187
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) JUN 7 1980		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Midwater fishes 2. Gulf Stream cold-core rings 3. Time-series cruises		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Station data and midwater-fish catch data are given for the cold-core ring time-series cruises KNORR 62, 65, and 71 and ENDEAVOR 11. Fish number, fish number per unit volume of water, and fish volume per unit volume of water are given for some principal fish categories, mostly myctophid species.		

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S/N 0102-014-6601

UNCLASSIFIED 3/80 381

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

WHOI-80-18

MIDWATER FISH DATA REPORT:
COLD CORE RINGS TIME SERIES CRUISES
KNORR 62, 65, AND 71 AND ENDEAVOR 11

by

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and
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March 1980

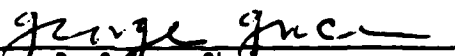
TECHNICAL REPORT

*Prepared for the Office of Naval Research under Contract
N00014-79-C-0071; NR 083-004.*

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March 17, 1980

This data report is for midwater fishes taken on the time-series cruises in and around cold-core Gulf Stream rings in 1976 and 1977 - KNORR cruises 62, 65, and 71 and ENDEAVOR cruise 11.

The MOCNESS-10 system was used for sampling on the three KNORR cruises. Most often, five nets were fished at each station; one (Net 0) generally sampled down to near 1000 m where the second net (Net 1) was opened and retrieval of the gear begun; successive closure-openings were done at 250-m intervals on the way up. On ENDEAVOR cruise 11, for want of a suitable winch, a single net was fished down to and up from 1000 m.

The first tables describe the circumstances surrounding the making of the collections. These tables are self-explanatory except that the second depth shown for Net 0, the down-fishing net, is the maximum depth reached by the net, not the depth at which the net was closed. (That depth is the first one given for Net 1).

The data tables can be divided into two sorts because of the difference in gear used on the ENDEAVOR and KNORR cruises. One set allows intercomparison of data by 250-m depth strata for the three KNORR cruises. A second set allows comparison of the ENDEAVOR 11 data with the remainder by the pooling of collections for each station of the KNORR cruises.

Essentially three kinds of data are given - number of specimens, number of specimens per unit volume of water, and volume of fish per unit volume of water. Most of the tables are for individual species, mainly myctophids. A few at the outset are for pooled myctophids, pooled gonostomatids, photichthyids, and sternoptychids, and for pooled Cyclothone species. The various classes of tables are set off from one another by colored separators.

Designating numbers for and values from samples taken at night are underlined; ones for daytime samples are not.

Dashes in the "KNORR-cruises" tables indicate irregularities in net operation. The match of the values given with the depth scale at the left may be approximate. For the actual sampling depths see the station-data tables.

March 17, 1980

Page 2

The water-column (usually 1000 m) values given in the "all cruise" tables for specimens per unit volume of water and fish volume per unit volume of water were calculated for the KNORR stations by averaging the down rate (Net 0 rate) and the up rate; the up rate was calculated by averaging the rates of individual nets (in those few collections where the depth intervals were not equal, a weighted average was used for this 'up' rate). In these tables stations 32 and 33 are special. Because of a missed depth interval (250-0 for 32) and a lost sample-jar of myctophids (for 33, 4), numbers of specimens are minimum ones (except for non-myctophids from 33) and are enclosed in parentheses. Station averages for specimens per unit volume of water and fish volume per unit volume of water are based on Net 0 only and are enclosed in parentheses.

These data are relatively few when they are apportioned according to season, location with respect to the ring center, time of day and depth, and, of course, the variance is large. Remember, also, that a midwater trawl catches some unknown fraction of what is actually there. This work was done under Contract N00014-79-C-0071 NR083-004 and its predecessors with the Office of Naval Research.

Richard H. Backus

James E. Craddock

RHB,JEC:md

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STATION DATA

KNORR 62

MOC	Location	Position	Date	Time	Depth	Depth	Bearing to	Distance	Center
10		N W	Dec. '76		Net (m)	15° (m)	(approx.)	to (n.mi.)	of
20,0	Center "A1"	36°12', 65°36'	5-6	2245	0010	0	315°	10-12	Al
1			6	0010	0037	1000			
2			6	0037	0057	750			
3			6	0057	0116	500			
4		36°06', 65°39'	6	0116	0144	250		322	
22,0	Flank "A1"	36°22', 65°07'	10-11	2350	0121	0	225°	±25	Al
2			11	0121	0210	500			
3		36°25', 65°03'	11	0210	0300	250		340	
23,0	Fringe "Al-Arc"	37°18', 63°22'	15	0008	0103	0	315°	±55	Art
1			15	0103	0140	750			
2			15	0140	0231	500			
3		37°15', 63°15'	15	0231	0343	250		600	
24,0	Slope Water	38°47', 68°56'	19	1942	2030	0	-	-	-
1			19	2030	2107	775			
2			19	2107	2201	500			
3		38°42', 68°56'	19	2201	2300	250		100	

KNORR 65

MOC	Location	Position N W	Date April '77	Time	Depth Net (m)	Depth 15° (m)	Bearing to (approx.)	Distance to (n.mi.)	Center to
25,0	N. Sargasso Sea	34°27', 71°19'	13	0037	0131	0	1050	845	-
1			13	0131	0209	1000	750		
2			13	0209	0249	750	500		
3			13	0249	0336	500	250		
4		34°21', 71°23'	13	0336	0410	250	0	860	
26,0	N. Sargasso Sea	34°13', 71°25'	13	1410	1523	0	1200	860	-
1			13	1523	1558	1000	750		
2			13	1558	1624	750	500		
3			13	1624	1652	500	250		
4		34°10', 71°31'	13	1652	1725	250	0	860	
27,0	Center "Bob"	36°47', 69°30'	17	1352	1449	0	1075	40	±5 Bob
1			17	1449	1534	1000	750		
2			17	1534	1619	750	500		
3			17	1619	1702	500	250		
4		36°39', 69°26'	17	1702	1744	250	0	40	
28,0	Center "Bob"	36°41', 69°30'	17	2055	2150	0	1000	40	±5 Bob
1			17	2150	2231	1000	750		
2			17	2231	2311	750	500		
3			17	2311	2352	500	250		
4		36°49', 69°27'	17-18	2352	0030	250	0	42	
29,0	Fringe "Bob" ("wake")	36°33', 70°26'	18	2150	2320	0	1000		±65 Bob
1			18	2320	2350	1000	750		
2			18-19	2350	0016	750	500	±650	
3			19	0016	0046	500	250		
4		36°35', 70°31'	19	0046	0125	250	0		
32,0	Center "Bob"	36°40', 68°27'	21	2220	2352	0	1020	<100	±15 Bob
1			21-22	2352	0028	1000	750		
3			22	0028	0053	750	500		
4		36°44', 68°33'	22	0056	0133	500	250	±80	

-continued-

KNORR 65, continued

MOC 10	Location	Position N W	Date April '77	Time	Depth Net (m)	Depth 15 (m)	Bearing to (approx.)	Distance to (n.mi.)	Center to
33.0	Flank "Bob"	36°30', 67°57'	23	0042 0207	0 1020	±300	315°	±35	"Bob"
1			23	0207 0237	1000 750				
2			23	0237 0312	750 500				
3			23	0312 0340	500 250				
4		36°29', 67°58'	23	0340 0405	250 0	±275			
35.0	Center "Al"	36°36', 66°37'	24	1303 1409	0 1000	375	±165°?	±20?	"Al"
1			24	1409 1450	1000 750				
2			24	1450 1530	750 500				
3			24	1530 1610	500 250				
4		36°31', 66°34'	24	1610 1650	250 0	450			
36.0	Slope Water	38°21', 67°38'	28	1248 1400	0 1020	40	-	-	-
1			28	1400 1439	1000 750				
2			28	1439 1520	750 500				
3			28	1520 1600	500 250				
4		38°12', 67°37'	28	1600 1639	250 0	65			
38.0	Slope Water	59°25', 69°31'	29-30	2345 0101	0 780	30	-	-	-
1			30	0101 0155	750 500				
2			30	0155 0253	500 250				
3		39°21', 69°43'	30	0253 0345	250 0	30			
39.0	Slope Water	39°30', 69°42'	30	1234 1635		30	-	-	-
1			30	1635 1721					
2		39°37', 69°52'	30	1721 1805		5			

ENDEAVOR 11

MOC 10	Location	Position N W	Date July-Aug 77	Time	Maximum net depth (m)	Depth 15° (m)	Bearing to (approx.)	Distance to (n.mi.)	Center to
40	"Dave"	29°51', 75°20' 29°48', 75°18'	28	0510 0835	<400	305	-	-	-
42	"Bob" center	34°30', 71°33' 34°18', 71°23'	1	1145 1600	850	>120?	315°	±10	"Bob"
43	N. Sargasso Sea	33°30', 73°11' 33°41', 73°07'	2	1450 1915	1000+	700	075°	±100	"Bob"
44	N. Sargasso Sea	33°33', 73°06' 33°49', 73°04'	3	0255 0700	860	±700	075°	±100	"Bob"
45	N. Sargasso Sea ("Wake")	34°26', 70°37' 34°20', 70°38'	5-6	2310 0305	1000+	± 625	280°	±60	"Bob"
46	"Bob" fringe	34°38', 71°01' 34°33', 71°01'	6	1210 1555	1000+	550	260°	±45	"Bob"
47	"Bob" center	34°29', 71°47' 34°28', 72°00'	6-7	2330 0320	880	112	315°	±4	"Bob"
48	"Bob" center	34°29', 71°55' 34°25', 72°08'	7	1040 1430	1000+	150	010°	±5	"Bob"
49	"Bob" center	34°30', 71°55' 34°31', 72°10'	9	1125 1515	980	107	300°	±4	"Bob"
50	"Bob" center	34°28', 72°03' 34°31', 71°50'	10-11	2325 0320	845	118	290°	±13	"Bob"
51	"Bob" flank	34°31', 71°43' 34°25', 71°45'	13	0230 0640	980	±410	280°	±31	"Bob"

-continued-

ENDEAVOR 11, continued

MOC 10	Location	Position N W	Date July-Aug 77	Time	Maximum net depth (m)	Depth 15 (m)	Bearing to (approx.)	Distance to (n.mi.)	Center to
52	N. Sargasso Sea	36°53', 70°31' 37°04', 70°19'	14-15	2105 0100	900	670	-	-	-
53	Slope Water	38°19', 69°08' 38°20', 68°54'	15-16	2320 0320	870	70	-	-	-
54	Slope Water	38°29', 69°06' 38°40', 69°04'	16	1305 1715	950	50	-	-	-

KNORR 71

MOC	Location	Position N W	Date Oct-Nov 77	Time	Depth Net (m)	Depth 15° (m)	Bearing to (approx.)	Distance to (n.mi.)	Center to
10									
56.0	Slope Water	38°31', 71°59'	23	1628	0	830	-	-	-
1			23	1628	600	400			
2		38°37', 71°56'	23	1650	400	0		<0	
57.0	Slope Water	38°39', 71°54'	24	0052	0	1020	-	-	-
1			24	0217	1000	750			
2			24	0300	750	500			
3			24	0340	500	250		<0?	
4		38°47', 71°51'	24	0420	250	0			
58.0	Center "Em"	34°51', 70°22'	29	0201	0	1010	020°	13-14	"Em"
1			29	0322	1000	750			
2			29	0350	750	500			
3			29	0412	500	250			
4		34°52', 70°16'	29	0436	250	0			
59.0	Center "Em"	34°53', 70°28'	29	1412	0	1030	360°	15	"Em"
1			29	1550	1000	750			
2			29	1615	750	500			
3			29	1640	500	250			
4		34°48', 70°36'	29	1707	250	0		320	
61.0	Center "Frank"	36°43', 65°47'	3	1345	0	1030	290°	12-13	"Frank"
1			3	1502	1000	667			
2			3	1537	667	475			
3			3	1601	475	250			
4		36°46', 65°40'	3	1628	250	0			

-continued-

KNORR 71, continued

MOC 10	Location	Position N W	Date Oct-Nov 77	Time	Depth Net (m)	Depth 15° (m)	Bearing to (approx.)	Distance to (n.m.)	Center to
62.0	Center "Frank"	36°42', 65°49'	4	0123 0208	0 1020	180	290°	±15	"Frank"
1			4	0208 0325	1000 750				
2			4	0325 0339	750 500				
3			4	0339 0419	500 250				
4		36°48', 65°40'	4	0419 0502	250 0	210			
63.0	N. Sargasso Sea	36°46', 64°32'	4	2153 2317	0 1020	720	270°	70-75	"Frank"
1			4	2317 2358	1000 750				
2			4-5	2358 0043	750 500				
3			5	0043 0122	500 250				
4		36°49', 64°24'	5	0122 0201	250 0	720			
64.0	Flank "Frank"	36°39', 65°15'	5	2104 2221	0 1020	510	290°	42-43	"Frank"
1			5	2221 2257	1000 750				
2			5	2257 2341	750 500				
3			5-6	2341 0014	500 250				
4		36°38', 65°10'	6	0014 0101	250 0	540			
65.0	Center "Frank"	36°49', 65°58'	6	1232 1354	0 1040	180	290°	8-9	"Frank"
1			6	1354 1438	1000 750				
2			6	1438 1528	750 500				
3			6	1528 1614	500 250				
4		36°52', 65°46'	6	1614 1646	250 0	220			
66.0	Center "Frank"	36°56', 65°59'	6	2140 2316	0 1020	170	-	±1	"Frank"
1			6-7	2316 0002	1000 750				
2			7	0002 0045	750 500				
3			7	0045 0132	500 250				
4		37°04', 66°10'	7	0132 0213	250 0	190			

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MYCTOPHIDAE

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
		0	<u>24</u>	1	<u>23</u>	1	17	<u>13</u>	7	<u>13</u>			
		250	<u>4</u>	17	<u>5</u>	17	12	<u>4</u>	11	<u>6</u>			
		500	<u>5</u>	10	<u>5</u>	-	-	<u>5</u>	7	<u>4</u>			
		750	-	5	-	-	-	<u>1</u>	3	<u>1</u>			
		1000	-	5	-	-	-	<u>1</u>	3	<u>1</u>			
Ring Center	Depth	Net 0	<u>14</u>	8	<u>10</u>	12	15	<u>9</u>	8	<u>9</u>			
		Collection	<u>20</u>	35	<u>27</u>	<u>28</u>	<u>32</u>	<u>58</u>	<u>59</u>	61	<u>62</u>	65	<u>66</u>
		0	<u>Al</u>	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
		250	<u>14</u>	0	0	<u>17</u>	-	<u>5</u>	2	4	<u>11</u>	2	<u>17</u>
		500	<u>4</u>	7	10	<u>2</u>	<u>2</u>	<u>4</u>	5	14	<u>11</u>	16	<u>5</u>
		750	<u>1</u>	14	5	<u>2</u>	<u>2</u>	<u>6</u>	11	11	<u>9</u>	15	<u>5</u>
Ring Flank	Depth	1000	<u>4</u>	4	2	<u>3</u>	<u>1</u>	<u>7</u>	8	7	-	9	<u>3</u>
		Net 0	<u>14</u>	7	2	<u>12</u>	<u>5</u>	<u>9</u>	16	16	<u>18</u>	14	<u>17</u>
		Collection	<u>22</u>	33									
		0	<u>Al</u>	Bob									
		250	<u>17</u>	-									
		500	<u>5</u>	6									
Ring Fringe	Depth	750	-	<u>1</u>									
		1000	-	<u>2</u>									
		Net 0	<u>14</u>	<u>18</u>									
		Collection	<u>23</u>	29									
		0	<u>Al-Art</u>	Bob									
		250	<u>21</u>	<u>28</u>									
N. Sargasso Sea	Depth	500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
		Collection	<u>23</u>	29									
		0	<u>Al-Art</u>	Bob									
N. Sargasso Sea	Depth	250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
		Collection	<u>23</u>	29									
N. Sargasso Sea	Depth	0	<u>Al-Art</u>	Bob									
		250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
N. Sargasso Sea	Depth	250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
		Collection	<u>23</u>	29									
N. Sargasso Sea	Depth	0	<u>Al-Art</u>	Bob									
		250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
N. Sargasso Sea	Depth	250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
		Collection	<u>23</u>	29									
N. Sargasso Sea	Depth	0	<u>Al-Art</u>	Bob									
		250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
N. Sargasso Sea	Depth	250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
		Collection	<u>23</u>	29									
N. Sargasso Sea	Depth	0	<u>Al-Art</u>	Bob									
		250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
N. Sargasso Sea	Depth	250	<u>21</u>	<u>28</u>									
		500	<u>2</u>	<u>2</u>									
		750	<u>6</u>	<u>4</u>									
		1000	-	<u>6</u>									
		Net 0	<u>9</u>	<u>22</u>									
		Collection	<u>23</u>	29									
N. Sargasso Sea	Depth	0											

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71			
Slope Water	Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>
	0	<u>138</u>	1	<u>106</u>	1	321	<u>56</u>	42	<u>83</u>
	250	<u>30</u>	117	<u>9</u>	125	69	<u>16</u>	174	<u>31</u>
	500	<u>41</u>	28	<u>10</u>	-	-	<u>49</u>	27	<u>47</u>
	750	-	8	-	-	-	<u>13</u>	7	<u>6</u>
	1000	-	-	-	-	-	-	-	-
Ring Center	Net 0	<u>81</u>	21	<u>27</u>	48	199	<u>93</u>	52	<u>167</u>
	Collection	<u>20</u>	35	27	<u>28</u>	<u>58</u>	<u>59</u>	61	<u>62</u>
	0	<u>Al</u>	Al	Bob	<u>Bob</u>	<u>Em</u>	<u>Em</u>	Frank	<u>Frank</u>
	250	<u>27</u>	0	0	<u>308</u>	<u>13</u>	3	4	<u>72</u>
	500	<u>4</u>	10	57	<u>2</u>	<u>8</u>	19	142	<u>71</u>
	750	<u>2</u>	32	12	<u>2</u>	<u>23</u>	44	172	<u>190</u>
Ring Flank	1000	<u>27</u>	5	2	<u>3</u>	<u>42</u>	32	43	-
	Net 0	<u>66</u>	11	8	<u>80</u>	<u>14</u>	43	97	<u>96</u>
	Collection	<u>22</u>	<u>33</u>			<u>64</u>			
	0	<u>Al</u>	<u>Bob</u>			<u>Frank</u>			
	250	<u>120</u>	-			<u>49</u>			
	500	<u>7</u>	<u>7</u>			<u>1</u>			
Ring Fringe	750	-	<u>4</u>			<u>8</u>			
	1000	-	<u>4</u>			<u>31</u>			
	Net 0	<u>84</u>	<u>73</u>			<u>39</u>			
	Collection	<u>23</u>	<u>29</u>						
	0	<u>Al-Art</u>	<u>Bob</u>						
	250	<u>231</u>	<u>129</u>						
N. Sargasso Sea	500	<u>2</u>	<u>2</u>						
	750	<u>10</u>	<u>50</u>						
	1000	-	<u>24</u>						
	Net 0	<u>31</u>	<u>44</u>						
	Collection	<u>25</u>	26			<u>63</u>			
	0	<u>33</u>	1			<u>43</u>			
Myctophidae, number of specimens	250	<u>4</u>	22			<u>0</u>			
	500	<u>1</u>	24			<u>5</u>			
	750	<u>14</u>	43			<u>108</u>			
	1000	<u>7</u>	21			<u>21</u>			
	Net 0								

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	35.4	0.4	27.2	0.4	91.7	24.3	21.0	27.7			
	250	10.0	41.8	2.1	50.0	40.6	6.4	64.4	9.4				
	500	17.8	11.2	2.3	-	-	22.3	10.0	15.2				
	750	-	2.9	-	-	-	5.9	2.8	2.1				
	1000	-	-	-	-	-	-	-	-				
	Net 0	50.6	8.1	7.9	4.3	33.2	38.8	20.0	38.8				
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	Frank
	250	5.4	0	0	146.7	-	8.1	2.0	3.1	32.7	1.5	39.6	
	500	3.3	3.3	21.1	0.8	4.3	5.3	10.6	78.9	22.2	35.6	15.2	
	750	1.5	11.0	4.6	0.9	1.9	17.7	25.9	122.8	73.1	187.1	96.0	
	1000	15.9	1.9	0.9	1.4	0.6	26.3	17.8	18.7	-	13.8	5.8	
Ring Flank	Depth	Collection	22	33			64						
	0	Al	Bob			Frank							
	250	41.4	-			14.4							
	500	2.3	7.8			0.4							
	750	-	5.0			3.0							
	1000	-	5.0			17.2							
Ring Fringe	Depth	Collection	23	29									
	0	Al-Art	Bob										
	250	57.8	67.9										
	500	0.6	1.1										
	750	4.3	41.7										
	1000	-	17.1										
N. Sargasso Sea	Depth	Collection	25	26			63						
	0	14.3	0.5			17.2							
	250	1.4	12.9			0							
	500	0.5	16.0			2.2							
	750	8.8	22.6			47.0							
	1000	4.4	10.5			9.5							
Net 0													

Myctophidae,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
Slope Water	Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
	0	<u>11.3</u>	<0.1	<u>11.3</u>	<0.1	10.2	<u>7.1</u>	7.2	<u>12.3</u>			
	250	<u>6.5</u>	15.1	<u>2.6</u>	23.0	10.1	<u>2.4</u>	12.5	<u>11.1</u>			
	500	<u>5.5</u>	11.0	<u>15.5</u>	-	-	<u>8.8</u>	13.0	<u>9.2</u>			
	750	-	0.6	-	-	-	<u>1.1</u>	4.2	<u>5.2</u>			
	1000	-	-	-	-	-	-	-	-			
	Net 0	<u>15.4</u>	2.7	<u>17.5</u>	12.6	20.8	<u>11.3</u>	7.4	<u>14.7</u>			
Ring Center	Collection	<u>20</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	<u>59</u>	61	<u>62</u>	65	<u>66</u>
		<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	Frank	Frank	Frank	Frank
	0	<u>1.4</u>	0	0	<u>54.9</u>	-	<u>1.6</u>	0.7	0.3	<u>9.3</u>	0.1	<u>6.7</u>
	250	<u>3.5</u>	1.7	23.9	<u>1.3</u>	<u>10.0</u>	<u>0.8</u>	1.5	28.6	<u>2.7</u>	5.1	<u>11.0</u>
	500	<u>0.9</u>	3.2	5.8	<u>1.2</u>	<u>2.4</u>	<u>8.2</u>	5.4	27.1	<u>5.5</u>	12.8	<u>6.2</u>
	750	<u>1.4</u>	1.5	1.8	<u>1.6</u>	<0.1	<u>4.9</u>	3.4	5.0	-	11.1	<u>1.5</u>
	Net 0	<u>7.6</u>	1.0	1.4	<u>26.5</u>	<u>10.4</u>	<u>1.0</u>	5.2	10.6	<u>20.5</u>	9.4	<u>10.4</u>
Ring Flank	Collection	<u>22</u>	<u>33</u>			<u>64</u>						
		<u>Al</u>	<u>Bob</u>			Frank						
	0	<u>6.4</u>	-			<u>2.4</u>						
	250	<u>6.0</u>	<u>1.6</u>			<u>2.4</u>						
	500	-	<u>4.6</u>			<u>4.1</u>						
	750	-	<u>0.5</u>			<u>3.5</u>						
	Net 0	<u>2.5</u>	<u>2.4</u>			<u>4.7</u>						
Ring Fringe	Collection	<u>23</u>	<u>29</u>									
		<u>Al-Art</u>	<u>Bob</u>									
	0	<u>10.3</u>	<u>11.4</u>									
	250	<u>1.9</u>	<u>1.0</u>									
	500	<u>1.2</u>	<u>1.5</u>									
	750	-	<u>2.1</u>									
	Net 0	<u>39.6</u>	<u>13.3</u>									
N. Sargasso Sea	Collection		<u>25</u>	26			<u>63</u>					
	0		<u>1.7</u>	<0.1			<u>1.7</u>					
	250		<u>0.6</u>	1.2			<u>0</u>					
	500		<0.1	6.3			<u>0.2</u>					
	750		<u>0.7</u>	4.2			<u>4.0</u>					
	1000		<u>0.4</u>	1.3			<u>4.6</u>					
	Net 0											

Myctophidae,
ml/10,000 m³

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71						
Slope Water	Collection 24	36	38	39	53	54	56	57	67	68		
	29	28	30	25	16	25	27	20	22	20		
Ring Center	Collection 20 Al	35	27	28	40	42	58	59	61	62	65	66
	24	Al	Bob	Bob	Dave	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Flank	Collection 22 Al	33	Bob	32	51	Bob	64	Frank				
	21	(22)			24		30					
Ring Fringe	Collection 23 Al-Art	29	30	Bob	46	Bob						
	22	37	(25)		19							
Sargasso Sea	Collection	25	26		43	44	45	52				
		16	21		21	14	15	10				
Myctophidae, number of species										63	21	

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection <u>24</u> 290	36 <u>38</u> 39 175 <u>152</u> 174	53 <u>54</u> 152 <u>237</u>	56 <u>57</u> 67 68 589 <u>227</u> 302 <u>334</u>	
Ring Center	Collection <u>20</u> Al <u>126</u>	35 27 28 32 Al Bob Bob Bob 58 79 395 <u>(130)</u>	40 42 47 48 49 50 Dave Bob Bob Bob Bob 70 261 <u>137</u> 113 71 <u>154</u>	58 59 61 62 65 66 lim Em Frank Frank Frank 100 141 458 <u>429</u> 847 <u>484</u>	
Ring Flank	Collection <u>22</u> Al <u>211</u>	33 <u>30</u> Bob (88)	51 <u>51</u> Bob 132	64 <u>64</u> Frank 128	
Ring Fringe	Collection <u>23</u> Al-Art <u>274</u>	29 30 30 Bob Bob Bob 249 <u>113</u>	46 <u>46</u> Bob 63		Myctophidae, number of specimens
Sargasso Sea	Collection <u>25</u> 59 111	43 <u>44</u> 45 52 153 <u>55</u> 86 <u>27</u>		63 <u>63</u> 177 <u>177</u>	

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Ring Fringe	Collection 24	36 38 39	53 54	56 57 67 68	
Ring Fringe	35.9	11.1 9.2 14.7	12.8 20.1	49.7 26.8 22.3 26.2	
Ring Fringe	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank	
Ring Fringe	17.6	4.6 5.3 55.1 (66.7)	6.9 19.6 12.1 10.5 6.7 13.3	10.4 12.3 45.3 40.4 41.2 31.1	
Ring Fringe	Collection 22 Al	33 Bob	51 Bob	64 Frank	
Ring Fringe	20.5	(60.8)	11.3	12.9	
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 Bob		
Ring Fringe	18.6	34.4 12.6	5.8		
Sargasso Sea	Collection	25 26	43 44 45 52	63	
Sargasso Sea		5.4 11.8	11.7 4.6 7.4 2.3	13.1	

Myctophidae,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection <u>24</u>	36 <u>38</u> 39	53 <u>54</u>	56 <u>57</u> 67 <u>68</u>	
	<u>12.9</u>	4.7 <u>13.7</u> 12.3	3.0 <u>3.1</u>	16.8 <u>8.1</u> 8.3 <u>12.1</u>	
Ring Center	Collection <u>20</u> Al	35 27 28 <u>32</u> Al Bob Bob Bob	40 42 Bob Bob 49 50 Dave Bob Bob Bob Bob	58 <u>59</u> 61 62 65 66 Em Em Frank Frank Frank Frank	
Ring Flank	Collection <u>22</u> Al	1.3 4.7 20.7 (10.4)	.3 1.9 1.5 2.2 .7 1.9	2.5 4.0 12.9 12.4 8.4 8.4	
Ring Fringe	Collection <u>23</u> Al-Art	33 <u>33</u> Bob Bob	51 <u>51</u> Bob Bob	64 <u>64</u> Frank Frank	
Sargasso Sea	Collection <u>22.1</u>	29 30 <u>30</u> Bob Bob Bob	46 <u>46</u> Bob Bob	Myctophidae, ml/10,000 m ³	
		8.7 2.1	.6		
		25 <u>26</u>	43 <u>44</u> 45 <u>52</u>	63 <u>63</u>	
		.6 2.1	1.0 .5 .8 .4	3.1 <u>3.1</u>	

STERNOPTYCHIDAE, GONOSTOMATIDAE, AND PHOTICHTHYIDAE
(EXCLUDING CYCLOTHONE SPP.)

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
Slope Water	Collection	24	36	38	39	56	57	67	68			
	0	2	3	4	3	2	2	1	0			
	250	0	1	2	1	0	3	2	3			
	500	1	1	1	-	-	1	1	2			
	750	-	1	-	-	-	1	1	0			
	1000 Net 0	3	2	2	2	3	3	1	1			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		A1	A1	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	2	1	1	2	-	1	0	0	1	1	4
	250	3	3	1	0	2	3	3	3	3	3	3
	500	1	2	2	1	1	2	2	2	0	1	1
	750	0	1	0	0	0	1	2	1	-	0	0
1000 Net 0	6	4	1	3	2	4	4	4	5	1	2	
Ring Flank	Collection	22	33									
		A1	Bob									
	0	3	1									
	250	5	2									
	500	-	1									
	750	-	0									
1000 Net 0	6	3										
Ring Fringe	Collection	23	29									
		A1-Art	Bob									
	0	7	5									
	250	4	5									
	500	1	1									
	750	-	1									
1000 Net 0	3	6										
N. Sargasso Sea	Collection	25	26									
	0	2	1									
	250	4	3									
	500	0	0									
	750	1	1									
	1000 Net 0	5	2									

		Sternoptychidae, Gonostomatidae, & Photichthyidae (excluding <u>Cyclothone</u> spp.),	
		Number of species	

Sternoptychidae,
Gonostomatidae, &
Photichthyidae
(excluding Cyclothone spp.),

Number of species

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	<u>12</u>	6	<u>8</u>	5	3	<u>2</u>	1	<u>0</u>			
		250	<u>0</u>	2	<u>4</u>	1	0	<u>6</u>	4	<u>4</u>			
		500	<u>5</u>	3	<u>9</u>	-	-	<u>5</u>	2	<u>10</u>			
		750	-	5	-	-	-	<u>2</u>	1	<u>0</u>			
		1000 Net 0	<u>4</u>	8	<u>2</u>	19	8	<u>11</u>	1	<u>1</u>			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
		0	<u>A1</u>	A1	Bob	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	Em	Frank	<u>Frank</u>	Frank	<u>Frank</u>
		0	<u>4</u>	1	1	<u>3</u>	-	<u>1</u>	0	0	<u>1</u>	1	<u>6</u>
		250	<u>16</u>	19	1	<u>0</u>	<u>2</u>	<u>9</u>	3	6	<u>11</u>	9	<u>14</u>
		500	<u>2</u>	3	5	<u>3</u>	<u>1</u>	<u>15</u>	40	4	<u>0</u>	1	<u>1</u>
		750	<u>0</u>	3	0	<u>0</u>	<u>0</u>	<u>2</u>	3	1	-	0	<u>0</u>
Ring Flank	Depth	Collection	22	33									
		0	<u>A1</u>	<u>Bob</u>									
		0	<u>21</u>	<u>1</u>									
		250	<u>86</u>	<u>5</u>									
		500	-	<u>1</u>									
		750	-	<u>0</u>									
Ring Fringe	Depth	Collection	23	29									
		0	<u>A1-Art</u>	<u>Bob</u>									
		0	<u>20</u>	<u>41</u>									
		250	<u>10</u>	<u>15</u>									
		500	<u>2</u>	<u>5</u>									
		750	-	<u>2</u>									
N. Sargasso Sea	Depth	Collection	25	26									
		0	<u>5</u>	<u>2</u>									
		250	<u>29</u>	<u>3</u>									
		500	<u>0</u>	<u>0</u>									
		750	<u>2</u>	<u>3</u>									
		1000 Net 0	<u>9</u>	<u>5</u>									

Sternoptychidae,
Gonostomatidae, &
Photichthyidae
(excluding Cyclothone spp.),

number of specimens

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
Slope Water	Collection	24	36	38	39	56	57	67	68			
	0	3.1	2.2	2.1	2.1	0.9	0.9	0.5	0			
	250	0	0.7	0.9	0.4	0	2.4	1.5	1.2			
	500	2.2	1.2	2.1	-	-	2.3	0.7	3.2			
	750	-	1.8	-	-	-	2.2	0.4	0			
	1000	2.5	3.1	0.6	1.7	1.3	4.6	0.4	0.2			
Net 0												
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	0.8	0.4	0.6	1.4	-	0.6	0	0	0.5	0.5	2.3
	250	13.3	6.3	0.4	0	1.4	6.0	1.7	3.3	3.4	3.3	5.2
	500	1.5	1.0	1.9	1.3	0.6	11.5	23.5	2.9	0	0.3	0.4
	750	0	1.1	0	0	0	1.3	1.7	0.4	-	0	0
1000	6.5	8.2	0.5	5.5	1.1	7.3	4.9	1.8	2.5	0.4	0.5	
Net 0												
Ring Flank	Collection	22	33			64						
		Al	Bob			Frank						
	0	7.2	1.7			3.8						
	250	27.7	5.6			20.9						
	500	-	1.3			3.7						
	750	-	0			4.4						
1000	2.5	7.5			2.6							
Net 0												
Ring Fringe	Collection	23	29									
		Al-Art	Bob									
	0	5.0	21.6									
	250	3.2	7.9									
	500	0.9	4.2									
	750	-	1.4									
1000	3.7	43.3										
Net 0												
N. Sargasso Sea	Collection		25	26			63					
	0		2.2	1.1			6.4					
	250		10.4	1.8			9.6					
	500		0	0			2.2					
	750		1.3	1.6			1.7					
	1000		5.6	2.5			5.9					
Net 0												

Sternoptychidae,
Gonostomatidae, &
Photichthyidae
(excluding *Cyclothone* spp.),
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	0.1	0.1	0.7	0.1	0.1	0.8	0.1	0			
	250	0	0.1	<0.1	<0.1		0	0.3	0.1	0.1			
	500	1.9	1.0	2.3	-		-	1.4	0.3	1.6			
	750	-	1.1	-	-		-	1.1	0.7	0			
	1000	-	-	-	-		-	-	-	-			
	Net 0	1.0	1.9	<0.1	1.0		0.6	0.8	0.2	0.3			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0	<0.1	0.1	0.1	1.3	-	0.1	0	0	0.1	0.8	0.7	
	250	4.2	0.8	0	0	2.1	0.9	0.8	6.3	0.4	3.4	0.1	
	500	0.6	0.5	0.4	1.8	0.1	0.2	1.5	0.1	0	0	0.1	
	750	0	0.6	0	0	0	0.4	0.8	0.1	-	0	0	
Ring Flank	1000	0	0	0	0	0	0.4	0.8	0.1	-	0	0	
	Net 0	0.3	1.8	0	1.1	0.6	1.5	0.5	2.4	0.5	<0.1	<0.1	
	Collection	22	33			64							
		Al	Bob			Frank							
	0	0.1	<0.1			0.1							
	250	3.1	1.8			1.8							
Ring Fringe	Depth	500	0.1			0.7							
	750	-	0			1.2							
	1000	0.8	2.4			1.0							
	Net 0	0.8	2.4			1.0							
	Collection	23	29										
		Al-Art	Bob										
N. Sargasso Sea	0	0.6	0.5										
	250	0.8	1.6										
	500	0.2	0.6										
	750	-	1.3										
	1000	0.7	17.6										
	Net 0	0.7	17.6										
N. Sargasso Sea	Collection	25	26			63							
	0	0.2	0.1			0.2							
	250	3.8	0.4			1.0							
	500	0	0			0.6							
	750	1.2	0.4			0.3							
	1000	1.2	1.3			2.5							
N. Sargasso Sea	Net 0	1.2	1.3			2.5							
	Collection	25	26			63							
	0	0.2	0.1			0.2							
	250	3.8	0.4			1.0							
	500	0	0			0.6							
	750	1.2	0.4			0.3							

Sternoptychidae,
Gonostomatidae, &
Photichthyidae
(excluding *Gonostoma elongatur*
& *Cyclothone* spp.),
ml/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection	24	36	53	56
Slope Water	4	4	3	5
Ring Center	20	35	40	58
Ring Center	AI	AI	Dave	Em
Ring Center	6	5	4	6
Ring Flank	22	33	51	64
Ring Flank	AI	Bob	Bob	Frank
Ring Fringe	23	29	46	8
Ring Fringe	AI-Art	Bob	Bob	
Ring Fringe	9	9	5	
Sargasso Sea	Collection	25	43	63
Sargasso Sea		6	4	9

Sternoptychidae,
Gonostomatidae, &
Photichthyidae (ex-
cepting Cyclothone spp.),
number of species

Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection 24	36 38 39	53 54	56 57 67 68
21	24 23 25	9 7	11 26 9 15
Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank
37	44 8 12 (5)	37 8 12 9 2 20	43 66 16 17 12 23
Collection 22 Al	33 Bob	51 Bob	64 Frank
118	16	39	85
Collection 23 Al-Art	29 30 Bob	46 Bob	Sternoptychidae, Gonostomatidae, & Photichthyidae (ex- cepting Cyclothone spp.), number of specimens
39	115 56	11	
Collection	25 26	43 44 45 52	
Sargasso Sea	45 13	19 24 17 16	61

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	2.1	2.3 1.2 1.6	.8 .6	1.1 3.3 1.0 .7	
Ring Center	Collection 20 Al	35 27 28 32 Al Bob BOB BOB	40 42 47 48 49 50 Dave Bob BOB Bob Bob BOB	58 59 61 62 65 66 Em Frank Frank Frank Frank Frank	
	5.2	5.2 .6 3.1 (1.1)	3.6 .6 1.1 .8 .2 1.7	6.1 5.8 1.8 1.3 1.3	
Ring Flank	Collection 22 Al	33 Bob	51 Bob	64 Frank	
	7.5	4.9	3.1	5.4	
Ring Fringe	Collection 23 Al-Art	29 30 Bob BOB	46 Bob		
	3.4	26.0 6.2	1.0		Sternoptychidae, Gonostomatidae, & Photichthyidae (ex- cepting Cyclothone spp.), specimens/10,000 m ³
Sargasso Sea	Collection	25 26	43 44 45 52	63	
		4.6 1.8	1.5 2.0 1.5 1.4	5.5	

Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection 24	36	53	56
	38	54	57
	39		67
			68
Slope Water			
	1.3	2.1	.4
	.5	<.1	.9
	.8		.3
			.4
Collection 20	35	40	58
AI	27	42	59
	28	47	61
	32	48	62
	Bob	49	65
	Bob	50	66
	Bob	Bob	Em Frank Frank Frank
	1.2	.4	1.0
	.1	.1	.7
	1.0	.7	2.0
	(.6)	.3	.3
		<.1	.6
			.1
Collection 22	33	51	64
AI	Bob	Bob	Frank
	1.1	.1	1.0
Collection 23	29	46	
AI-Art	30	Bob	
	Bob		
	1.1	<.1	
	9.3		
Collection 25	26	43	63
		44	52
		45	
		52	
Sargasso Sea			
	1.3	.1	.3
	.8	.3	.2
		.3	.3
			1.5

Sternoptychidae,
Gonostomatidae,
Photichthyidae (ex-
cepting Gonostoma
elongatum & Cyclothone spp.),
ml/10,000 m³

CYCLOTHONE SPP.

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	<0.1	0.2	0.1	0.2	0.3	0.1	0.1	<0.1	
		250	1.3	1.8	4.7	6.4	5.3	1.6	2.2	3.0	
		500	9.5	10.8	11.9	-	-	14.5	8.9	12.6	
		750	-	7.5	-	-	-	12.3	8.4	10.0	
		1000	-	-	-	-	-	-	-	-	
	Net 0		6.3	9.6	11.2	8.1	5.2	6.3	6.5	2.6	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	Depth	0	<0.1	0.2	0	<0.1	0.1	0.1	0.4	<0.1	0.2
		250	2.1	6.0	3.1	2.9	0.7	0.1	0.2	0.5	0.4
		500	0.6	9.7	18.0	7.3	15.4	7.1	5.0	7.7	5.4
		750	8.3	10.7	5.8	8.0	8.8	8.9	14.3	-	11.4
Ring Flank	Collection	22	33				64				
		Al	Bob				Frank				
	Depth	0	<0.1	-			<0.1				
		250	2.9	0			0.9				
		500	-	16.3			4.8				
		750	-	20.0			9.4				
Ring Fringe	Collection	23	29								
		Al-Art	Bob								
	Depth	0	<0.1	0							
		250	0.1	1.7							
		500	6.7	8.6							
		750	-	8.0							
N. Sargasso Sea	Collection	25	26				63				
		0	0.1	0.1			<0.1				
	Depth	250	0.8	0.1			0.8				
		500	1.3	2.1			9.1				
		750	3.9	5.4			6.1				
		1000	2.9	10.0			5.5				
		Net 0									

Cyclothone spp.,
ml/10,000 m³

Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection <u>24</u>	36 <u>38</u> 39	53 <u>54</u>	56 <u>57</u> 67 <u>68</u>
Slope Water	7.4 <u>8.4</u> 6.9	2.0 <u>5.5</u>	4.0 <u>6.7</u> 5.7 <u>4.5</u>
Collection <u>20</u> AI	35 27 <u>28</u> AI Bob Bob	40 <u>42</u> Dave Bob Bob	58 <u>59</u> Em Em
Ring Center	7.7 13.0 <u>11.8</u> (21.1)	.6 2.1 <u>2.8</u> 3.0 1.9 <u>3.6</u>	4.5 <u>4.3</u> 5.4 <u>5.5</u> 7.0 <u>7.7</u>
Collection <u>22</u> AI	33 <u>31</u> Bob Bob	51 <u>64</u> Bob Frank	64 <u>65</u> Frank Frank
Ring Flank	2.2 <u>15.4</u>	2.1 <u>2.1</u>	3.9 <u>3.9</u>
Collection <u>23</u> AI-Art	29 30 <u>30</u> Bob Bob Bob	46 <u>46</u> Bob	46 <u>46</u> Bob
Ring Fringe	2.7 <u>.9</u> 3.6 <u>2.0</u>	2.0 <u>2.0</u>	2.0 <u>2.0</u>
Collection	25 <u>25</u> 26	43 <u>44</u> <u>45</u> <u>52</u>	63 <u>63</u>
Sargasso Sea	2.2 <u>2.2</u> 6.0	2.6 <u>1.0</u> <u>2.2</u> <u>.8</u>	4.8 <u>4.8</u>

SPECIES

NUMBER OF SPECIMENS BY DEPTH INTERVAL WITHIN STATIONS, KNORR CRUISES

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
Slope Water	Collection	<u>24</u>	36	<u>38</u>	39		56	<u>57</u>	67	<u>68</u>			
	0	<u>31</u>	0	<u>15</u>	1		257	<u>8</u>	9	<u>35</u>			
	250	<u>26</u>	28	<u>5</u>	37		38	<u>10</u>	21	<u>19</u>			
	500	<u>31</u>	0	<u>3</u>	-		-	<u>27</u>	13	<u>18</u>			
	750	-	0	-	-		-	<u>13</u>	2	<u>6</u>			
	1000	-	-	-	-		-	-	-	-			
	Net 0	<u>25</u>	4	<u>7</u>	25		156	<u>70</u>	35	<u>97</u>			
Ring Center	Collection	<u>20</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	<u>59</u>	61	<u>62</u>	65	<u>66</u>	
	0	<u>Al</u>	<u>Al</u>	Bob	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	Frank	<u>Frank</u>	Frank	<u>Fran</u>	
	250	<u>0</u>	0	0	<u>195</u>	-	<u>0</u>	0	1	<u>0</u>	2	<u>0</u>	
	500	<u>0</u>	0	35	<u>1</u>	<u>5</u>	<u>0</u>	0	40	<u>24</u>	20	<u>31</u>	
	750	<u>2</u>	1	8	<u>0</u>	<u>2</u>	<u>0</u>	0	34	<u>47</u>	58	<u>108</u>	
	1000	<u>1</u>	0	0	<u>1</u>	<u>0</u>	<u>6</u>	2	17	-	12	<u>11</u>	
	Net 0	<u>5</u>	0	6	<u>24</u>	<u>91</u>	<u>2</u>	4	53	<u>19</u>	21	<u>30</u>	
Ring Flank	Collection	<u>22</u>	<u>33</u>				<u>64</u>						
	0	<u>Al</u>	<u>Bob</u>				<u>Frank</u>						
	250	<u>0</u>	-				<u>0</u>						
	500	<u>0</u>	<u>1</u>				<u>0</u>						
	750	-	<u>4</u>				<u>0</u>						
	1000	-	<u>0</u>				<u>3</u>						
	Net 0	<u>4</u>	<u>16</u>				<u>1</u>						
Ring Fringe	Collection	<u>23</u>	<u>29</u>										
	0	<u>Al-Art</u>	<u>Bob</u>										
	250	<u>0</u>	<u>0</u>										
	500	<u>0</u>	<u>0</u>										
	750	<u>0</u>	<u>0</u>										
	1000	-	<u>0</u>										
	Net 0	<u>0</u>	<u>0</u>										
N. Sargasso Sea	Collection		<u>25</u>	26			<u>63</u>						
	0		<u>0</u>	0			<u>0</u>						
	250		<u>0</u>	0			<u>0</u>						
	500		<u>0</u>	0			<u>0</u>						
	750		<u>0</u>	0			<u>0</u>						
	1000		<u>0</u>	0			<u>0</u>						
	Net 0		<u>0</u>	0			<u>0</u>						

Benthosema glaciale,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	5	0	8	0	1	5	0	0			
	250	0	5	0	0	0	0	0	1	0			
	500	0	0	0	0	-	-	0	0	0			
	750	-	1	-	-	-	-	0	0	0			
	1000	Net 0	6	1	0	1	0	0	0	0	0		
	Collection	20	35	27	28	32	58	59	61	62	65	66	
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Fra	
Ring Center	Depth	0	1	0	0	6	-	0	0	0	0	2	
	250	0	1	4	0	0	0	0	7	0	5	0	
	500	0	0	0	0	0	0	1	0	0	1	0	
	750	0	0	0	0	0	0	0	0	-	0	0	
	1000	Net 0	0	0	0	3	0	0	0	0	1	2	
	Collection	22	33										
	0	Al	Bob	64 Frank									
Ring Flank	Depth	0	6	-	0								
	250	0	0	0									
	500	-	0	0									
	750	-	0	0									
	1000	Net 0	0	1	0								
	Collection	23	29										
	0	Al-Art	Bob										
Ring Fringe	Depth	0	1	7									
	250	0	0										
	500	0	1										
	750	-	0										
	1000	Net 0	1	1									
	Collection	25	26										
	0	0	0	63									
N. Sargasso Sea	Depth	250	0	0	1								
	500	0	0	0									
	750	0	0	0									
	1000	0	0	0									
	Net 0	0	0	0									
	<u>Benthosema suborbitale,</u> number												

Benthosema suborbitale,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	<u>2</u>	0	<u>0</u>	0	1	<u>11</u>	0	1			
		250	<u>0</u>	2	<u>0</u>	0	0	<u>0</u>	2	<u>0</u>			
		500	<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
		750	-	0	-	-	-	<u>0</u>	0	<u>0</u>			
		1000	-	0	-	-	-	<u>0</u>	0	<u>0</u>			
		Net 0	<u>2</u>	0	<u>1</u>	1	2	<u>0</u>	0	<u>0</u>			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
		0	<u>AI</u>	<u>AI</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Fra</u>
		250	<u>4</u>	0	0	<u>2</u>	-	<u>3</u>	1	0	<u>14</u>	0	2
		500	<u>0</u>	0	1	<u>0</u>	0	<u>0</u>	12	5	<u>0</u>	10	<u>0</u>
		750	<u>0</u>	7	0	<u>0</u>	0	<u>0</u>	5	0	<u>0</u>	5	<u>0</u>
		1000	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	-	0	<u>0</u>
		Net 0	<u>4</u>	1	0	<u>1</u>	0	<u>0</u>	3	0	<u>3</u>	2	<u>0</u>
Ring Flank	Depth	Collection	22	33									
		0	<u>AI</u>	<u>Bob</u>									
		250	<u>42</u>	-									
		500	<u>1</u>	<u>0</u>									
		750	-	<u>0</u>									
		1000	-	<u>0</u>									
		Net 0	<u>12</u>	<u>1</u>									
Ring Fringe	Depth	Collection	23	29									
		0	<u>AI-Art</u>	<u>Bob</u>									
		250	<u>40</u>	<u>10</u>									
		500	<u>0</u>	<u>0</u>									
		750	<u>1</u>	<u>0</u>									
		1000	-	<u>0</u>									
		Net 0	<u>0</u>	<u>2</u>									
N. Sargasso Sea	Depth	Collection	25	26									
		0	<u>0</u>	0									
		250	<u>0</u>	0									
		500	<u>0</u>	7									
		750	<u>0</u>	1									
		1000	<u>0</u>	2									
		Net 0	<u>0</u>										

Bolinichthys indicus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	24	0	2	0	5	3	2	26			
		250	0	0	0	0	9	0	139	7			
		500	0	0	0	-	-	17	0	21			
		750	-	0	-	-	-	0	0	0			
		1000	-	0	-	-	-	0	0	0			
Ring Center	Depth	Net 0	3	0	0	0	5	0	6	35			
		Collection	20	35	27	28	32	58	59	61	62	65	66
		0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Fra
		250	1	0	0	0	-	0	0	1	12	0	42
		500	0	0	0	0	0	0	0	53	21	23	3
		750	0	0	0	0	0	0	0	104	123	523	111
Ring Flank	Depth	1000	0	0	0	0	0	0	15	-	1	0	
		Net 0	14	0	0	0	0	0	0	7	3	17	18
		Collection	22	33									
		0	Al	Bob									
		250	4	-									
		500	0	0									
Ring Fringe	Depth	750	-	0									
		1000	-	0									
		Net 0	8	0									
		Collection	23	29									
		0	Al-Art	Bob									
		250	9	0									
N. Sargasso Sea	Depth	500	0	0									
		750	0	0									
		1000	0	0									
		Net 0	1	0									
		Collection	25	26									
		0	0	0									
N. Sargasso Sea	Depth	250	0	0									
		500	0	0									
		750	0	0									
		1000	0	0									
		Net 0	0	0									
		Collection	63										

Ceratoscopelus maderensis,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
		0	<u>1</u>	0	<u>6</u>	0	0	<u>3</u>	0	<u>2</u>			
		250	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>			
		500	<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	1	<u>0</u>			
		750	-	1	-	-	-	<u>0</u>	2	<u>0</u>			
		1000	<u>1</u>	2	<u>0</u>	1	1	<u>2</u>	0	<u>2</u>			
Ring Center	Depth	Collection	<u>20</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
		0	<u>Al</u>	Al	Bob	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	Frank	<u>Frank</u>	Frank	<u>Fra</u>
		250	<u>3</u>	0	0	<u>1</u>	-	<u>2</u>	0	0	<u>4</u>	1	<u>8</u>
		500	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
		750	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>4</u>	2	0	<u>2</u>	0	<u>0</u>
		1000	<u>0</u>	0	1	<u>0</u>	<u>0</u>	<u>8</u>	7	6	-	2	<u>0</u>
Ring Flank	Depth	Collection	<u>22</u>	33									
		0	<u>Al</u>	<u>Bob</u>									
		250	<u>17</u>	-									
		500	<u>1</u>	<u>0</u>									
		750	-	<u>0</u>									
		1000	-	<u>0</u>									
Ring Fringe	Depth	Collection	<u>23</u>	<u>29</u>									
		0	<u>Al-Art</u>	<u>Bob</u>									
		250	<u>82</u>	<u>16</u>									
		500	<u>0</u>	<u>0</u>									
		750	<u>3</u>	<u>0</u>									
		1000	-	<u>11</u>									
N. Sargasso Sea	Depth	Collection	<u>25</u>	26									
		0	<u>0</u>	0									
		250	<u>0</u>	0									
		500	<u>0</u>	0									
		750	<u>0</u>	1									
		1000	<u>0</u>	0									

Ceratoscopelus warmingii,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
Slope Water	Depth	0	<u>1</u>	0	<u>6</u>	0	0	<u>0</u>	1	<u>0</u>			
	250		<u>0</u>	5	<u>0</u>	10	0	<u>0</u>	0	<u>0</u>			
	500		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	750		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	1000		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	Net 0		<u>5</u>	0	<u>1</u>	0	0	<u>0</u>	0	<u>0</u>			
		Collection	<u>20</u>	35	27	<u>28</u>	32	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
Ring Center	Depth	0	<u>Al</u>	Al	Bob	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	Em	Frank	<u>Frank</u>	Frank	<u>Frank</u>
	250		<u>0</u>	0	0	<u>1</u>	-	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	500		<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	750		<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	1000		<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	Net 0		<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
		Collection	<u>22</u>	33				<u>64</u>					
Ring Flank	Depth	0	<u>Al</u>	Bob				<u>Frank</u>					
	250		<u>0</u>	-				<u>0</u>					
	500		<u>0</u>	0				<u>0</u>					
	750		<u>0</u>	0				<u>0</u>					
	1000		<u>0</u>	0				<u>0</u>					
	Net 0		<u>0</u>	0				<u>0</u>					
		Collection	<u>23</u>	29									
Ring Fringe	Depth	0	<u>Al-Art</u>	Bob									
	250		<u>1</u>	2									
	500		<u>0</u>	0									
	750		<u>0</u>	0									
	1000		<u>0</u>	0									
	Net 0		<u>0</u>	0									
		Collection	<u>23</u>	29									
N. Sargasso Sea	Depth	0	<u>Al-Art</u>	Bob									
	250		<u>1</u>	2									
	500		<u>0</u>	0									
	750		<u>0</u>	0									
	1000		<u>0</u>	0									
	Net 0		<u>0</u>	0									
		Collection	<u>23</u>	29									
N. Sargasso Sea	Depth	0	<u>25</u>	26				<u>63</u>					
	250		<u>0</u>	0				<u>0</u>					
	500		<u>0</u>	0				<u>0</u>					
	750		<u>0</u>	0				<u>0</u>					
	1000		<u>0</u>	0				<u>0</u>					
	Net 0		<u>0</u>	0				<u>0</u>					
		Collection	<u>25</u>	26				<u>63</u>					

Diaphus dumerilii,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	0	0	0	0	0	0	
		250	0	0	0	0	0	0	0	0	
		500	0	0	0	-	-	0	0	0	
		750	-	0	-	-	-	0	0	0	
		1000	-	0	-	-	-	0	0	0	
	Net 0	0	0	0	0	0	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	0	-	0	0	0	1	0
	250	0	0	1	0	0	0	1	5	0	2
	500	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	-	0
	1000	0	0	0	0	0	0	0	0	0	0
Ring Flank	Net 0	0	0	0	0	0	0	0	0	0	0
	Collection	22	33				64				
		Al	Bob				Frank				
	0	0	-				1				
	250	0	0				0				
	500	0	0				0				
Ring Fringe	750	-	0				0				
	1000	-	0				0				
	Net 0	1	1				0				
	Collection	23	29								
		Al-Art	Bob								
	0	2	1								
N. Sargasso Sea	250	0	0								
	500	0	0								
	750	-	0								
	1000	-	0								
	Net 0	2	2								
	Collection		25	26			63				
	0		0	0			0				
	250		0	0			0				
	500		0	1			0				
	750		0	0			0				
	1000		0	0			0				
	Net 0		0	0			0				

Diaphus effulgens,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	1	0	0	0	0	1	0	0	
	250		0	0	0	0	0	0	0	0	
	500		0	0	0	-	-	0	0	0	
	750		-	0	-	-	-	0	0	0	
	1000										
	Net 0	1	0	0	2		0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	1	0	0	1	-	4	2	0	1	0
	250		0	0	0	0	0	0	0	0	0
	500		0	0	0	0	0	0	0	0	0
	750		0	0	0	0	0	0	0	0	0
	Net 0	0	0	0	0	0	0	0	1	0	0
Ring Flank	Collection	22	33				64				
		Al	Bob				Frank				
	0		-				2				
	250	5					0				
	500	0	0				0				
	750	-	0				0				
	Net 0	2	0				0				
Ring Fringe	Collection	23	29								
		Al-Art	Bob								
	0	5	5								
	250	0	0								
	500	0	0								
	750	-	0								
	Net 0	0	0								
N. Sargasso Sea	Collection		25	26			63				
	0		0	0			0				
	250		0	1			0				
	500		0	1			0				
	750		0	0			0				
	1000		1	0			0				
	Net 0		1	0			0				

Diaphus mollis.
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
Slope Water	Collection	24	36	38	39	56	57	67	68			
	0	0										
	250	0	1	5	0	0	0	0	0			
	500	0	2	0	5	0	0	1	0			
	750	0	0	0	-	-	0	0	0			
	1000	-	0	-	-	-	0	0	0			
	Net 0	0	0	2	0	0	0	1	0			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	250	3	0	0	0	-	0	0	0	0	0	0
	500	0	1	1	0	1	0	0	2	0	0	2
	750	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	-	0	0
	Net 0	0	2	0	0	0	0	0	0	0	1	0
Ring Flank	Collection	22	33									
	0	Al	Bob									
	250	8	-									
	500	3	0									
	750	-	0									
	1000	-	0									
	Net 0	1	7									
Ring Fringe	Collection	23	29									
	0	Al-Art	Bob									
	250	3	0									
	500	1	0									
	750	0	0									
	1000	-	0									
	Net 0	0	0									
N. Sargasso Sea	Collection	25	26									
	0											
	250	2	0									
	500	0	0									
	750	0	0									
	1000	0	0									
	Net 0	0	0									

Diaphus rafinesquii,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
Slope Water	Collection	24	36	38	39	56	57	67	68		
	0	0	0	6	0	1	2	0	0		
	250	0	3	0	1	1	0	4	0		
	500	4	0	0	-	-	1	0	1		
	750	-	0	-	-	-	0	0	0		
Ring Center	1000	-	0	-	-	-	0	0	0		
	Net 0	2	0	0	0	0	0	0	0		
	Collection	20	35	27	28	32	58	59	61	62	65
		A1	A1	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	1	-	2	0	0	0	0
Ring Flank	250	0	0	0	0	0	0	1	2	0	4
	500	0	3	0	0	0	0	1	0	0	0
	750	1	0	0	0	0	3	2	1	-	1
	1000	0	1	0	0	0	1	1	0	0	0
	Net 0	0	1	0	0	0	1	1	0	0	0
Ring Fringe	Collection	22	33			64					
		A1	Bob			Frank					
	0	4	-			1					
	250	0	0			0					
	500	-	0			0					
N. Sargasso Sea	750	-	0			0					
	1000	0	0			1					
	Net 0	0	0			1					
	Collection	23	29			63					
		A1-Art	Bob								
N. Sargasso Sea	0	6	3			0					
	250	0	0			0					
	500	1	0			0					
	750	-	0			0					
	1000	0	2			0					
N. Sargasso Sea	Net 0	0	2			0					
	Collection	25	26			63					
	0	2	1			0					
	250	0	0			0					
N. Sargasso Sea	500	0	0			0					
	750	0	0			0					
	1000	0	0			0					
	Net 0	0	1			0					
	Collection	25	26			63					
	0	2	1			0					
	250	0	0			0					
	500	0	0			0					
	750	0	0			0					
	1000	0	0			0					
	Net 0	0	1			0					

Diogenichthys atlanticus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71								
		Collection	24	36	38	39	56	57	67	68				
Slope Water	Depth	0	0	0	2	0	15	3	2	1				
	250	0	0	6	0	1	0	0	0	0				
	500	1	1	5	0	-	-	0	0	0				
	750	-	-	0	-	-	-	0	0	0				
	1000	0	0	0	0	0	0	0	1	1				
	Net 0	0	0	0	0	0	0	0	1	1				
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66		
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank		
	0	2	0	0	0	-	0	0	0	0	0	0		
	250	0	1	0	0	0	2	0	1	0	0	0		
	500	0	1	0	0	0	0	11	6	9	3	16		
	750	24	0	0	0	1	0	0	0	-	0	0		
Ring Flank	1000	25	0	0	2	0	0	4	7	1	1	8		
	Net 0	25	0	0	2	0	0	4	7	1	1	8		
	Collection	22	33							64				
		Al	Bob							Frank				
	0	2	-							0				
	250	1	0							0				
Ring Fringe	Depth	500	-	0							1			
	750	-	0							7				
	1000	13	0							0				
	Net 0	13	0							0				
	Collection	23	29											
		Al-Art	Bob											
N. Sargasso Sea	0	0	0											
	250	0	0											
	500	0	0											
	750	-	4											
	1000	0	0											
	Net 0	0	0											
		Collection	25	26							63			
		0	0	0							0			
		250	0	0							0			
		500	0	0							1			
		750	0	0							2			
		1000	0	0							2			
		Net 0	0	0							2			

Hygophum benoiti,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	22	0	4	0	0	0	
	250	0	0	15	0	49	0	0	0	0	
	500	0	0	0	0	-	-	0	0	0	
	750	-	0	0	-	-	-	0	0	0	
	1000	-	0	0	-	-	-	0	0	0	
	Net 0	0	9	9	7		4	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	46	-	0	0	0	0	0
	250	0	2	3	0	0	0	0	0	0	0
	500	0	7	0	0	0	0	0	0	0	2
	750	0	0	0	0	0	0	0	0	-	0
Ring Flank	1000	0	0	0	0	0	0	0	0	-	0
	Net 0	0	0	2	39	26	0	2	0	3	0
	Collection	22	33				64				
		Al	Bob				Frank				
	0	0	-				0				
	250	0	0				0				
Ring Fringe	500	0	0				0				
	750	-	0				0				
	1000	-	0				0				
	Net 0	0	16				0				
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0	1	6								
	250	0	0								
	500	0	42								
	750	-	0								
	1000	0	4								
	Net 0	0	4								
	Collection		25	26			63				
	0		11	0			0				
	250		1	0			0				
	500		0	8			0				
	750		9	2			0				
	1000		3	6			0				

Hygophum hygonii,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0											
			6	0	7	0	2	0	0	0			
	250		0	5	1	1	3	1	0	1			
	500		0	9	0	-	-	0	2	0			
	750		-	0	-	-	-	0	0	0			
	1000		-	0	-	-	-	0	0	0			
Net 0			3	0	1	0	2	0	0	0			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
			Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0												
	250		0	0	0	44	-	0	0	0	0	0	1
	500		0	0	4	0	0	0	0	0	1	1	0
	750		0	0	0	0	0	0	1	2	0	8	0
Ring Flank	Depth	Collection	22	33			64						
			Al	Bob			Frank						
	0												
	250		0	-			1						
	500		0	0			0						
	750		-	0			0						
Ring Fringe	Depth	Collection	23	29									
			Al-Art	Bob									
	0												
	250		1	5									
	500		0	0									
	750		0	0									
N. Sargasso Sea	Depth	Collection		25	26			63					
	0												
	250			1	0			0					
	500			0	0			0					
	750			0	0			0					
Net 0			0	0			0						

Lampanyctus alatus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	<u>1</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>1</u>			
	250		<u>0</u>	0	<u>0</u>	0	3	<u>0</u>	0	<u>1</u>			
	500		<u>0</u>	1	<u>0</u>	-	-	<u>0</u>	9	<u>0</u>			
	750		-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	1000		-	-	-	-	-	<u>0</u>	0	<u>0</u>			
	Net 0		<u>0</u>	0	<u>0</u>	0	5	<u>9</u>	1	<u>0</u>			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0	<u>0</u>	0	<u>0</u>	0	-	0	<u>0</u>	0	0	<u>0</u>	1	
	250	<u>0</u>	0	<u>0</u>	0	0	0	<u>0</u>	0	7	<u>0</u>	0	
	500	<u>0</u>	0	<u>0</u>	0	0	1	<u>0</u>	6	2	<u>1</u>	0	
	750	<u>1</u>	0	<u>0</u>	0	0	3	<u>5</u>	1	-	<u>9</u>	0	
Ring Flank	1000		-	-	-	-	-	-	-	-	-	-	
	Net 0		<u>0</u>	0	<u>0</u>	0	2	<u>4</u>	1	9	<u>4</u>	5	
	Collection	22	33				64						
		Al	Bob				Frank						
	0	<u>0</u>	-				<u>0</u>						
	250	<u>0</u>	<u>2</u>				<u>0</u>						
Ring Fringe	500	<u>0</u>	<u>0</u>				<u>0</u>						
	750	<u>1</u>	<u>0</u>				<u>2</u>						
	1000		-				<u>0</u>						
	Net 0		<u>1</u>				<u>0</u>						
	Collection	23	29										
		Al-Art	Bob										
N. Sargasso Sea	0	<u>0</u>	<u>1</u>										
	250	<u>0</u>	<u>0</u>										
	500	<u>0</u>	<u>0</u>										
	750	<u>0</u>	<u>0</u>										
	1000		-										
	Net 0		<u>2</u>										
N. Sargasso Sea	Collection	25	26				63						
	0	<u>7</u>	0				<u>0</u>						
	250	<u>1</u>	0				<u>0</u>						
	500	<u>0</u>	0				<u>0</u>						
	750	<u>0</u>	15				<u>2</u>						
	1000		-				<u>0</u>						
N. Sargasso Sea	Net 0		<u>1</u>				<u>0</u>						
	Collection	25	26				63						
	0	<u>7</u>	0				<u>0</u>						
	250	<u>1</u>	0				<u>0</u>						
	500	<u>0</u>	0				<u>0</u>						
	750	<u>0</u>	15				<u>2</u>						
N. Sargasso Sea	1000		-				<u>0</u>						
	Net 0		<u>1</u>				<u>0</u>						
	Collection	25	26				63						
	0	<u>7</u>	0				<u>0</u>						
	250	<u>1</u>	0				<u>0</u>						
	500	<u>0</u>	0				<u>0</u>						
N. Sargasso Sea	750	<u>0</u>	15				<u>2</u>						
	1000		-				<u>0</u>						
	Net 0		<u>1</u>				<u>0</u>						
	Collection	25	26				63						
	0	<u>7</u>	0				<u>0</u>						
	250	<u>1</u>	0				<u>0</u>						
N. Sargasso Sea	500	<u>0</u>	0				<u>0</u>						
	750	<u>0</u>	15				<u>2</u>						
	1000		-				<u>0</u>						
	Net 0		<u>1</u>				<u>0</u>						
	Collection	25	26				63						
	0	<u>7</u>	0				<u>0</u>						
N. Sargasso Sea	250	<u>1</u>	0				<u>0</u>						
	500	<u>0</u>	0				<u>0</u>						
	750	<u>0</u>	15				<u>2</u>						
	1000		-				<u>0</u>						
	Net 0		<u>1</u>				<u>0</u>						
	Collection	25	26				63						
N. Sargasso Sea	0	<u>7</u>	0				<u>0</u>						
	250	<u>1</u>	0				<u>0</u>						
	500	<u>0</u>	0				<u>0</u>						
	750	<u>0</u>	15				<u>2</u>						
	1000		-				<u>0</u>						
	Net 0		<u>1</u>				<u>0</u>						

Lampanyctus crocodilus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0									
			<u>6</u>	0	<u>1</u>	0	0	<u>0</u>	0	<u>0</u>	
	250		<u>0</u>	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	
	500		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	1	<u>7</u>	
	750		-	0	-	-	-	<u>0</u>	0	<u>0</u>	
	1000		-	0	-	-	-	<u>0</u>	0	<u>0</u>	
Net 0		0	<u>0</u>	1	<u>2</u>	0	2	<u>2</u>	1	<u>0</u>	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		AI	AI	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	<u>0</u>	0	0	<u>0</u>	-	<u>0</u>	0	0	<u>0</u>	0
	250	<u>1</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>4</u>	0
	500	<u>0</u>	3	0	<u>1</u>	<u>1</u>	<u>1</u>	0	0	<u>4</u>	0
	750	<u>0</u>	2	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	-	0
1000		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0
Net 0		0	0	0	<u>0</u>	<u>0</u>	0	1	0	<u>0</u>	0
Ring Flank	Collection	22	33				64				
		AI	Bob				Frank				
	0	<u>0</u>	-				<u>4</u>				
	250	<u>0</u>	<u>0</u>				<u>0</u>				
	500	<u>0</u>	<u>0</u>				<u>0</u>				
	750	<u>0</u>	<u>0</u>				<u>1</u>				
1000		<u>0</u>	<u>0</u>				<u>3</u>				
Net 0		0	0								
Ring Fringe	Collection	23	29								
		AI-Art	Bob								
	0	<u>16</u>	<u>3</u>								
	250	<u>1</u>	<u>1</u>								
	500	<u>0</u>	<u>0</u>								
	750	<u>0</u>	<u>0</u>								
1000		<u>0</u>	<u>0</u>								
Net 0		0	6								
N. Sargasso Sea	Collection		25	26			63				
	0		<u>1</u>	0			<u>1</u>				
	250		<u>0</u>	0			<u>0</u>				
	500		<u>0</u>	3			<u>0</u>				
	750		<u>0</u>	1			<u>4</u>				
	1000		<u>0</u>	0			<u>6</u>				
Net 0			0	0							

Lampanyctus cuprarius,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0									
			3	0	0	0	0	0	0	1	
	250		0	0	0	0	1	0	0	0	
	500		0	1	0	-	-	0	1	0	
	750		-	0	-	-	-	0	0	0	
	1000		-								
	Net 0		0	0	0	1	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0		0	0	0	-	0	0	0	2	0
	250		0	0	0	0	2	0	0	3	0
	500		0	0	0	0	1	2	7	1	6
	750		0	0	0	0	6	0	0	-	0
	Net 0		2	0	0	0	1	4	0	11	0
Ring Flank	Collection	22	33				64				
		Al	Bob				Frank				
	0		1	-			3				
	250		0	0			0				
	500		-	0			0				
	750		-	0			1				
	Net 0		2	1			5				
Ring Fringe	Collection	23	29								
		Al-Art	Bob								
	0		10	1							
	250		0	0							
	500		0	0							
	750		-	0							
	Net 0		1	0							
N. Sargasso Sea	Collection		25	26			63				
	0		0	0			1				
	250		0	0			0				
	500		0	0			0				
	750		0	1			1				
	1000		0	0			1				
	Net 0		0	0			1				

Lampanyctus photonotus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
Slope Water	Depth	0	<u>0</u>	0	<u>1</u>	0	3	<u>1</u>	0	<u>4</u>			
	250		<u>0</u>	0	<u>0</u>	0	1	<u>0</u>	0	<u>0</u>			
	500		<u>0</u>	1	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	750		<u>0</u>	0	-	-	-	<u>0</u>	0	<u>0</u>			
	1000		<u>0</u>										
	Net 0		<u>0</u>	0	<u>0</u>	0	1	<u>0</u>	0	<u>0</u>			
Ring Center	Collection	<u>20</u>	<u>Al</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
				Al	Bob	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	Em	Frank	<u>Frank</u>	Frank	<u>Frank</u>
	0		<u>2</u>	0	0	<u>0</u>	-	<u>0</u>	0	0	<u>25</u>	0	<u>11</u>
	250		<u>1</u>	0	1	<u>0</u>	<u>0</u>	<u>0</u>	0	6	<u>1</u>	4	<u>0</u>
	500		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>15</u>	17	1	<u>0</u>	28	<u>0</u>
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>15</u>	<u>13</u>	0	-	0	<u>0</u>
	Net 0		<u>7</u>	2	0	<u>0</u>	<u>1</u>	<u>1</u>	<u>9</u>	4	<u>25</u>	7	<u>4</u>
Ring Flank	Collection	<u>22</u>	<u>Al</u>	<u>33</u>				<u>64</u>					
				<u>Bob</u>				<u>Frank</u>					
	0		<u>16</u>	-				<u>3</u>					
	250		<u>0</u>	<u>1</u>				<u>0</u>					
	500		<u>0</u>	<u>0</u>				<u>0</u>					
	750		<u>0</u>	<u>0</u>				<u>0</u>					
	Net 0		<u>4</u>	<u>2</u>				<u>3</u>					
Ring Fringe	Collection	<u>23</u>	<u>Al-Art</u>	<u>29</u>									
				<u>Bob</u>									
	0		<u>14</u>	<u>2</u>									
	250		<u>0</u>	<u>0</u>									
	500		<u>1</u>	<u>0</u>									
	750		<u>0</u>	<u>1</u>									
	Net 0		<u>1</u>	<u>2</u>									
N. Sargasso Sea	Collection		<u>25</u>	26				<u>63</u>					
	0		<u>2</u>	0				<u>7</u>					
	250		<u>0</u>	0				<u>0</u>					
	500		<u>0</u>	1				<u>0</u>					
	750		<u>3</u>	0				<u>1</u>					
	1000		<u>0</u>	0				<u>1</u>					
	Net 0		<u>0</u>	0				<u>1</u>					

Lampanyctus pusillus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	0	0	0	0	0	0	
	250		0	0	0	0	0	0	0	0	
	500		0	0	0	-	-	0	0	0	
	750		-	0	-	-	-	0	0	0	
	1000										
	Net 0	0	0	0	0	0	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	1	0	0	0	-	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	1
	500	0	0	0	0	0	0	1	1	0	0
	750	0	0	0	0	0	0	0	0	-	0
Ring Flank	1000	0	0	0	0	0	0	0	0	-	0
	Net 0	0	0	0	0	0	1	2	0	0	0
	Collection	22	33				64				
		Al	Bob				Frank				
	0	4	-					0			
	250	0	0					0			
Ring Fringe	500	0	0					0			
	750	0	0					0			
	1000	0	0					0			
	Net 0	0	0					0			
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0	8	0								
	250	0	0								
	500	0	0								
	750	0	0								
	1000	0	0								
	Net 0	1	2								
N. Sargasso Sea	Collection	25	26				63				
	0	0	0				2				
	250	0	0				0				
	500	0	2				0				
	750	0	0				1				
	1000	0	0				0				

Lepidophanes gaussi,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	1	0	4	0	2	1	0	1			
	250		0	20	0	3	7	0	0	0			
	500		0	3	0	-	-	0	0	0			
	750		-	0	-	-	-	0	0	0			
	1000												
	Net 0		2	1	0	0	10	0	1	0			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0	4	0	0	2	-	0	0	0	7	0	5	
	250		0	2	0	0	0	0	3	0	0	0	
	500		0	0	0	0	0	0	8	0	15	0	
	750		0	0	0	0	0	0	0	-	0	0	
Ring Flank	1000												
	Net 0		1	0	0	0	0	0	6	0	3	0	
	Collection	22	33										
		Al	Bob										
	0	0	-										
	250		0										
Ring Fringe	Depth	0	0										
	500		0										
	750		0										
	1000												
	Net 0		0										
	Collection	23	29										
N. Sargasso Sea		Al-Art	Bob										
	0	1	8										
	250		0										
	500		0										
	750		0										
	1000		0										
		Net 0	1	2									
		Collection	25	26									
		0	0	0									
		250	0	0									
		500	0	0									
		750	0	0									
		1000	0	0									
		Net 0	0	0									

Lepidophanes guentheri,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0											
			30	0	3	0	13	12	26	7			
	250		0	0	0	3	0	4	0	0			
	500		0	0	0	-	-	2	0	0			
	750		0	0	-	-	-	0	0	0			
	1000		-	0	-	-	-	0	0	0			
Net 0		24	0	0	2	0	5	6	27				
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0												
		1	0	0	0	-	2	0	0	4	0	1	
	250		2	0	0	0	0	4	3	0	8	0	
	500		0	0	0	0	0	0	0	0	0	0	
Ring Flank	Depth	0											
			0	0	0	0	0	0	0	0			
	250		0	0	0	0	0	0	0	0			
	500		0	0	0	0	0	0	0	-	0	0	
	750		0	0	0	0	0	0	0	-	0	0	
	1000		0	0	0	0	0	0	0	-	0	0	
Net 0		1	2	0	0	1	2	1	7	3	1	2	
Ring Fringe	Collection	22	33										
		Al	Bob										
	0												
		0	-										
	250		0										
	500		0										
N. Sargasso Sea	Depth	0											
			0										
	250		0										
	500		0										
	750		0										
	1000		0										
Net 0		0	2										
		Collection	23	29									
		Al-Art	Bob										
0													
		0	6										
250			0										
500			0										
750			0										
1000			0										
Net 0		0	2										
		Collection	25	26									
0													
			2	0									
250			0	2									
500			0	0									
750			0	0									
1000			0	0									
Net 0		0	0	0									

Lobianchia dofleini,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0											
		250	<u>1</u>	0	<u>0</u>	0	<u>7</u>	<u>0</u>	0	<u>1</u>			
		500	<u>0</u>	8	<u>0</u>	4	0	<u>0</u>	1	<u>0</u>			
		750	<u>0</u>	0	<u>3</u>	-	-	<u>0</u>	0	<u>0</u>			
		1000	-	2	-	-	-	<u>0</u>	0	<u>0</u>			
		Net 0	<u>0</u>	2	<u>1</u>	2	2	<u>2</u>	0	<u>0</u>			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	
	Depth	0											
		250	<u>0</u>	0	0	<u>1</u>	-	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
		500	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
		750	<u>0</u>	2	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
		1000	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	-	0	<u>0</u>	
	Net 0	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	1	<u>0</u>	0	<u>0</u>	
Ring Flank	Collection	22	33										
		<u>Al</u>	<u>Bob</u>										
	Depth	0											
		250	<u>0</u>	-			<u>0</u>						
		500	<u>0</u>	<u>0</u>			<u>0</u>						
		750	-	<u>0</u>			<u>0</u>						
		1000	-	<u>0</u>			<u>0</u>						
	Net 0	<u>0</u>	<u>2</u>			<u>1</u>							
Ring Fringe	Collection	23	29										
		<u>Al-Art</u>	<u>Bob</u>										
	Depth	0											
		250	<u>0</u>	<u>1</u>									
		500	<u>0</u>	<u>0</u>									
		750	<u>0</u>	<u>0</u>									
		1000	-	<u>0</u>									
	Net 0	<u>0</u>	<u>0</u>										
N. Sargasso Sea	Collection		25	26			63						
	Depth	0											
		250	<u>0</u>	0			<u>0</u>						
		500	<u>0</u>	0			<u>0</u>						
		750	<u>0</u>	0			<u>0</u>						
		1000	<u>0</u>	0			<u>0</u>						
		Net 0	<u>0</u>	0			<u>0</u>						

Myctophum affine,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0	7	0	2	0	4	1	1	2		
	250		2	6	1	2	0	0	0	0		
	500		0	0	0	-	-	0	0	0		
	750		-	0	-	-	-	0	0	0		
	1000		-	0	-	-	-	0	0	0		
	Net 0		5	0	0	0	0	0	0	0	0	
	Collection	20	35	27	28	32	58	59	61	62	65	66
	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
Ring Center	Depth	0	0	0	2	-	0	0	1	0	0	10
	250		1	2	5	0	1	1	12	4	11	0
	500		0	1	1	0	0	0	0	0	0	0
	750		0	0	0	0	0	0	0	-	0	0
	1000		0	0	0	0	0	0	0	-	0	0
	Net 0		0	0	0	2	0	0	0	1	0	0
	Collection	22	33									
	Al	Bob										
Ring Flank	Depth	0	6	-								
	250		0	1								
	500		-	0								
	750		-	0								
	1000		-	0								
	Net 0		8	1								
	Collection	23	29									
	Al-Art	Bob										
Ring Fringe	Depth	0	15	23								
	250		0	1								
	500		0	0								
	750		-	0								
	1000		0	1								
	Net 0		0	1								
	Collection		25	26								
		3	0									
N. Sargasso Sea	Depth	250	1	14								
	500		0	0								
	750		0	0								
	1000		0	0								
	Net 0		0	2								
	Collection											

Notolychnus valdiviae,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
Slope Water	Depth	0	<u>0</u>	0	<u>4</u>	0	0	<u>5</u>	0	<u>1</u>			
	250		<u>0</u>	0	<u>0</u>	0	3	<u>0</u>	0	<u>0</u>			
	500		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	1	<u>0</u>			
	750		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	3	<u>0</u>			
	1000		<u>0</u>	3	-	-	-	<u>0</u>	3	<u>0</u>			
	Net 0		<u>0</u>	1	<u>0</u>	3	6	<u>1</u>	0	<u>1</u>			
Ring Center	Collection	<u>20</u>	<u>Al</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
				Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0		<u>0</u>	0	0	<u>2</u>	-	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	250		<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	500		<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	750		<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
Ring Flank	Collection	<u>22</u>	<u>Al</u>	<u>33</u>			<u>64</u>						
				Bob			Frank						
	0		<u>0</u>	-			<u>1</u>						
	250		<u>0</u>	<u>0</u>			<u>0</u>						
	500		<u>0</u>	<u>0</u>			<u>0</u>						
	750		<u>0</u>	<u>0</u>			<u>0</u>						
Ring Fringe	Collection	<u>23</u>	<u>Al-Art</u>	<u>29</u>									
				Bob									
	0		<u>0</u>	<u>0</u>									
	250		<u>0</u>	<u>0</u>									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>1</u>									
N. Sargasso Sea	Collection			<u>25</u>	26			<u>63</u>					
	0			<u>0</u>	0			<u>0</u>					
	250			<u>0</u>	0			<u>0</u>					
	500			<u>1</u>	0			<u>0</u>					
	750			<u>0</u>	17			<u>0</u>					
	Net 0		<u>0</u>	0	4			<u>0</u>					

Notoscopelus resplendens,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	3	1	0	0	0	0	0	
	250		0	0	0	0	0	0	0	1	
	500		0	0	0	-	-	0	0	0	
	750		0	0	-	-	-	0	0	0	
	1000		0	0	0	0	0	0	0	0	
	Net 0		0	0	0	0	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0		0	0	0	-	0	0	0	1	1
	250		0	0	0		0	0	0	1	2
	500		4	0	0	1	0	1	3	0	5
	750		0	0	0	0	0	0	0	0	0
Ring Flank	1000		0	0	0	0	0	0	0	-	0
	Net 0		2	4	0	0	1	2	1	1	0
	Collection	22	33				64				
		Al	Bob				Frank				
	0		0				0				
	250		0				0				
Ring Fringe	500		6				2				
	750		-				0				
	1000		-				0				
	Net 0		2	3			0				
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0		1	0							
	250		0	4							
	500		0	0							
	750		-	0							
	1000		0	8							
	Net 0		0								
		Collection	25	26			63				
N. Sargasso Sea	0		0	0			0				
	250		3	0			1				
	500		0	0			0				
	750		0	0			0				
	1000		0	0			0				
	Net 0		1	0			4				

Argyropelecus aculeatus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0	0	0	1	3	0	0	0	0		
	250	0	0	0	3	0	0	0	1	2		
	500	0	0	0	0	-	-	0	0	0		
	750	-	0	-	-	-	-	0	0	0		
	1000	0	0	0	0	0	2	5	1	1		
	Net 0	0	0	0	0	0	2	5	1	1		
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	0	1	0	0	-	1	0	0	0	0	0
	250	5	14	0	0	0	7	0	1	4	5	10
	500	2	0	0	0	0	14	39	0	0	0	0
	750	0	0	0	0	0	0	0	0	-	0	0
Ring Flank	1000	8	12	0	2	0	9	16	2	1	0	0
	Net 0	8	12	0	2	0	9	16	2	1	0	0
	Collection	22	33				64					
		Al	Bob				Frank					
	0	0	0				1					
	250	71	0				38					
Ring Fringe	Depth	500	0				7					
	750	-	0				0					
	1000	4	0				3					
	Net 0	4	0				3					
	Collection	23	29									
		Al-Art	Bob									
N. Sargasso Sea	0	1	0									
	250	5	2									
	500	2	5									
	750	-	0									
	1000	2	19									
	Net 0	2	19									
N. Sargasso Sea	Collection	25	26				63					
	0	0	0				0					
	250	13	1				13					
	500	0	0				3					
	750	0	0				0					
	1000	0	0				0					
N. Sargasso Sea	Net 0	2	0				3					
	Collection	25	26				63					
N. Sargasso Sea	0	0	0				0					
	250	13	1				13					
	500	0	0				3					
	750	0	0				0					
	1000	0	0				0					
	Net 0	2	0				3					

Argyropelecus hemigymnus,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	1	0	0	0	1	0	0	
		250	0	0	0	0	0	1	0	0	
		500	5	3	9	-	-	5	2	9	
		750	-	5	-	-	-	2	1	0	
		1000	-	-	-	-	-	-	-	-	
	Net 0	2	6	0	11		4	3	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	0	-	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0
	500	0	1	2	3	1	1	0	0	0	1
	750	0	3	0	0	0	2	2	1	-	0
Ring Flank	1000	1	1	0	2	1	5	1	0	1	0
	Net 0	1	1	0	2	1	5	1	0	1	0
	Collection	22	33				64				
		Al	Bob				Frank				
	0	0	0				0				
	250	0	0				0				
Ring Fringe	Depth	500	1				1				
		750	0				8				
	1000	2	1				3				
	Net 0	2	1				3				
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0	0	0								
	250	0	0								
	500	0	0								
	750	0	0				1				
	1000	2	3				4				
	Net 0	0	3				5				

Sternoptyx diaphana,
number

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
Slope Water	Depth	0											
			<u>7</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>			
	250		<u>0</u>	0	<u>1</u>	0	0	<u>0</u>	0	<u>0</u>			
	500		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>1</u>			
	750		-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	1000		-	0	-	-	-	<u>0</u>	0	<u>0</u>			
Net 0			<u>1</u>	2	<u>1</u>	8	2	<u>3</u>	0	<u>0</u>			
		Collection	<u>20</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
Ring Center	Depth	0	<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>
			<u>2</u>	0	0	<u>0</u>	-	<u>0</u>	0	0	<u>1</u>	0	<u>2</u>
	250		<u>0</u>	0	1	<u>0</u>	<u>1</u>	<u>0</u>	0	0	<u>1</u>	1	<u>1</u>
	500		<u>0</u>	2	3	<u>0</u>	<u>0</u>	<u>0</u>	1	3	<u>0</u>	1	<u>0</u>
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	1	0	-	0	<u>0</u>
	1000		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	1	0	-	0	<u>0</u>
Net 0			<u>1</u>	0	1	<u>2</u>	<u>1</u>	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>
		Collection	<u>22</u>	<u>33</u>			<u>64</u>						
Ring Flank	Depth	0	<u>Al</u>	<u>Bob</u>			<u>Frank</u>						
			<u>12</u>	<u>0</u>			<u>1</u>						
	250		<u>0</u>	<u>0</u>			<u>1</u>						
	500		-	<u>0</u>			<u>0</u>						
	750		-	<u>0</u>			<u>0</u>						
	1000		-	<u>0</u>			<u>0</u>						
Net 0			<u>1</u>	<u>5</u>			<u>0</u>						
		Collection	<u>23</u>	<u>29</u>									
Ring Fringe	Depth	0	<u>Al-Art</u>	<u>Bob</u>									
			<u>8</u>	<u>26</u>									
	250		<u>0</u>	<u>0</u>									
	500		<u>0</u>	<u>0</u>									
	750		-	<u>0</u>									
	1000		-	<u>0</u>									
Net 0			<u>2</u>	<u>1</u>									
		Collection		<u>25</u>	26			<u>63</u>					
N. Sargasso Sea	Depth	0		<u>0</u>	0			<u>3</u>					
				<u>0</u>	0			<u>0</u>					
	250			<u>0</u>	0			<u>0</u>					
	500			<u>0</u>	0			<u>0</u>					
	750			<u>0</u>	0			<u>0</u>					
	1000			<u>0</u>	0			<u>0</u>					
Net 0				<u>0</u>	1			<u>0</u>					

Gonostoma elongatum,
number

SPECIES

NUMBER OF SPECIMENS PER UNIT VOLUME OF WATER BY DEPTH INTERVAL,
WITHIN STATIONS, KNORR CRUISES

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71			
Slope Water	Collection	24	36	38	39	56	57	67	68
	0	7.9	0	3.8	0.4	73.4	3.5	4.5	10.6
	250	8.7	10.0	1.2	14.8	22.3	4.0	7.8	5.8
	500	13.5	0	0.7	-	-	12.3	4.8	5.8
	750	-	0	-	-	-	5.9	0.8	2.2
	1000	-	0	-	-	-	-	-	-
Ring Center	Net 0	15.6	1.5	2.1	2.3	26.0	29.2	13.5	22.6
	Collection	20	35	27	28	58	59	61	62
	0	AI	AI	Bob	Bob	Em	Em	Frank	Frank
	250	0	0	0	92.9	0	0	0.8	0
	500	0	0	15.0	0.4	0	0	22.2	7.5
	750	1.5	0.3	5.1	0	0	0	24.3	18.1
Ring Flank	1000	0.6	0	0	0.5	0	0	16.6	43.2
	Net 0	2.2	0	2.9	21.8	3.8	1.1	7.4	5.7
	Collection	22	33			64			
	0	AI	Bob			Frank			
	250	0	-			0			
	500	0	1.1			0			
Ring Fringe	750	-	5.0			0			
	1000	-	0			1.7			
	Net 0	0.9	13.3			0.4			
	Collection	23	29						
	0	AI-Art	Bob						
	250	0	0						
N. Sargasso Sea	500	0	0						
	750	0	0						
	1000	0	0						
	Net 0	0	0						
	Collection	25	26			63			
	0	0	0			0			

Benthosema glaciale,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71			
Slope Water	Collection	24	36	38	39	56	57	67	68
	0	1.3	0	2.1	0	0.3	2.2	0	0
	250	0	1.8	0	0.4	0	0	0.4	0
	500	0	0	0	-	-	0	0	0
	750	-	0.4	-	-	-	0	0	0
	1000	-	-	-	-	-	0	0	0
Ring Center	Net 0	3.8	0.4	0	0	0	0	0	0
	Collection	20	35	27	28	32	58	59	61
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank
	250	0.2	0	0	2.9	-	0	0	0
	500	0	0.3	1.5	0	0	0	0	3.9
	750	0	0	0	0	0	0	0.6	0
Ring Flank	1000	0	0	0	0	0	0	0	-
	Net 0	0	0	0	2.7	0	0	0	0
	Collection	22	33			64			
	0	Al	Bob			Frank			
	250	2.1	-			0			
	500	0	0			0			
Ring Fringe	750	-	0			0			
	1000	-	0			0			
	Net 0	0	0.8			0			
	Collection	23	29						
	0	Al-Art	Bob						
	250	0.3	3.7						
N. Sargasso Sea	500	0	0						
	750	0	0.8						
	1000	-	0						
	Net 0	0.5	0.8						
	Collection	25	26			63			
	0	0	0			0.4			

Benthosema suborbitale,
specimens/10,000 m²

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	0.5	0	0	0	0.3	4.8	0	0.3			
		250	0	0.4	0	0.4	0	0	0.8	0			
		500	0	0	0	-	-	0	0	0			
		750	-	0	-	-	-	0	0	0			
		1000	-	0	-	-	-	0	0	0			
		Net 0	1.3	0	0.3	0	0.3	0	0	0			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
		0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
		0	0.8	0	0	1.0	-	1.9	0.7	0	6.4	0	0.8
		250	0	0	0.4	0	0	0	6.7	2.8	0	3.7	0
		500	0	2.4	0	0	0	0	2.9	0	0	1.4	0
		750	0	0	0	0	0	0	0	0	-	0	0
		1000	0	0	0	0	0	0	0	0	0	0	
		Net 0	1.7	0.5	0	0.9	0	0	0.7	0	1.5	0.7	0
Ring Flank	Depth	Collection	22	33									
		0	Al	Bob									
		0	14.5	-									
		250	0.3	0									
		500	-	0									
		750	-	0									
		1000	-	0									
		Net 0	2.7	0.8									
Ring Fringe	Depth	Collection	23	29									
		0	Al-Art	Bob									
		0	10.0	5.3									
		250	0	0									
		500	0.4	0									
		750	-	0									
		1000	-	0									
		Net 0	0	1.7									
N. Sargasso Sea	Depth	Collection	25	26									
		0	0	0									
		250	0	0									
		500	0	4.7									
		750	0	0.5									
		1000	0	1.0									
		Net 0											

Bolinichthys indicus,
specimens/10,000 m³

63
2.0
0
0
1.3
1.4

Bolinichthys indicus,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection 24	36	38	39	56	57	67	68		
Slope Water	Depth	0									
		<u>6.2</u>	0	<u>0.5</u>	0	1.4	<u>1.3</u>	1.0	<u>7.9</u>		
	250	<u>0</u>	0	<u>0</u>	0	5.3	<u>0</u>	51.5	<u>2.1</u>		
	500	<u>0</u>	0	<u>0</u>	-	-	<u>7.7</u>	0	<u>6.8</u>		
	750	-	0	-	-	-	<u>0</u>	0	<u>0</u>		
	1000	-	0	-	-	-	<u>0</u>	0	<u>0</u>		
Net 0		<u>1.9</u>	0	<u>0</u>	0	0.8	<u>0</u>	2.3	<u>8.1</u>		
		Collection 20	35	27	28	58	59	61	62	65	66
		<u>AI</u>	<u>AI</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>
Ring Center	Depth	0									
		<u>0.2</u>	0	0	<u>0</u>	<u>0</u>	0	0.8	<u>5.5</u>	0	<u>16.2</u>
	250	<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	29.4	<u>6.6</u>	8.5	<u>1.1</u>
	500	<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	74.3	<u>47.3</u>	149.4	<u>44.4</u>
	750	<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	6.5	-	0.5	<u>0</u>
	1000	<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	2.5	<u>1.5</u>	6.1	<u>4.9</u>
Net 0		<u>6.1</u>	0	0	<u>0</u>	<u>0</u>	0	2.5	<u>1.5</u>	6.1	<u>4.9</u>
		Collection 22	33								
		<u>AI</u>	<u>Bob</u>								
Ring Flank	Depth	0									
		<u>1.4</u>	-								
	250	<u>0</u>	<u>0</u>								
	500	-	<u>0</u>								
	750	-	<u>0</u>								
	1000	-	<u>0</u>								
Net 0		<u>1.8</u>	<u>0</u>								
		Collection 23	29								
		<u>AI-Art</u>	<u>Bob</u>								
Ring Fringe	Depth	0									
		<u>2.3</u>	<u>0</u>								
	250	<u>0</u>	<u>0</u>								
	500	<u>0</u>	<u>0</u>								
	750	-	<u>0</u>								
	1000	-	<u>0</u>								
Net 0		<u>0.5</u>	<u>0</u>								
		Collection	25	26							
		0	<u>0</u>	0							
N. Sargasso Sea	Depth	250	<u>0</u>	0							
		500	<u>0</u>	0							
		750	<u>0</u>	0							
		1000	<u>0</u>	0							
	Net 0		<u>0</u>	0							

Ceratoscopelus maderensis,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	<u>0.3</u>	0	<u>1.5</u>	0	0	<u>1.3</u>	0	<u>0.7</u>			
		250	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>			
		500	<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0.4	<u>0</u>			
		750	-	0.4	-	-	-	<u>0</u>	0.8	<u>0</u>			
		1000	-	-	-	-	-	-	-	-			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
		0	<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>
		0	<u>0.6</u>	0	0	<u>0.5</u>	-	<u>1.3</u>	0	0	<u>1.8</u>	0.5	<u>3.1</u>
		250	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
		500	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>3.1</u>	1.2	0	<u>0.8</u>	0	<u>0</u>
		750	<u>0</u>	0	0.4	<u>0</u>	<u>0</u>	<u>5.0</u>	3.9	2.6	-	1.0	<u>0</u>
Ring Flank	Depth	Collection	22	33									
		0	<u>Al</u>	<u>Bob</u>									
		0	<u>5.9</u>	-									
		250	<u>0.3</u>	<u>0</u>									
		500	-	<u>0</u>									
		750	-	<u>0</u>									
Ring Fringe	Depth	Collection	23	29									
		0	<u>Al-Art</u>	<u>Bob</u>									
		0	<u>20.5</u>	<u>8.4</u>									
		250	<u>0</u>	<u>0</u>									
		500	<u>1.3</u>	<u>0</u>									
		750	-	<u>7.9</u>									
N. Sargasso Sea	Depth	Collection	25	26									
		0	<u>0</u>	<u>0</u>									
		250	<u>0</u>	<u>0</u>									
		500	<u>0</u>	<u>0</u>									
		750	<u>0</u>	0.5									
		1000	<u>0</u>	<u>0</u>									

Ceratoscopelus warmingii,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0	0.3	0	1.5	0	0	0	0.5	0		
	250	0		1.8	0	4.0	0	0	0	0		
	500	0		0	0	-	-	0	0	0		
	750	0		0	-	-	-	0	0	0		
	1000	-		0	-	-	-	0	0	0		
	Net 0	3.1		0	0.3	0	0	0	0	0		
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	0	0	0	0.5	-	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0
	500	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	-	0	0
Ring Flank	1000	0	0	0	0	0	0	0	0	0	0	0
	Net 0	0	0	0	0	0	0	0	0	0	0	0
	Collection	22	33									
		Al	Bob									
	0	0	-									
	250	0	0									
Ring Fringe	Depth	500	0									
	750	-	0									
	1000	-	0									
	Net 0	0	0									
	Collection	23	29									
		Al-Art	Bob									
N. Sargasso Sea	0	0.3	1.1									
	250	0	0									
	500	0	0									
	750	0	0									
	1000	-	0									
	Net 0	0	0									
	Collection	25	26									
	0	0	0									
	250	0	0									
	500	0	0									
	750	0	0									
	1000	0	0									
		Net 0	0	0								
		Diaphus dumerilii, specimens/10,000 m ³										
		63										

Diaphus dumerilii,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71					
Slope Water	Collection	24	36	38	39	56	57	67	68			
	0	0	0	0	0	0	0	0	0			
	250	0	0	0	0	0	0	0	0			
	500	0	0	0	-	-	0	0	0			
	750	-	0	-	-	-	0	0	0			
	1000	-	0	-	-	-	0	0	0			
Net 0	0	0	0	0	0	0	0	0	0			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	250	0	0	0	0	-	0	0	0	0.5	0	0
	500	0	0	0.4	0	0	0	0.6	2.5	0	0.7	0
	750	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	-	0	0
Net 0	0	0	0	0	0	0	0	0	0	0	0	
Ring Flank	Collection	22	33									
	0	Al	Bob									
	250	0	-									
	500	0	0									
	750	-	0									
	1000	-	0									
Net 0	0.2	0.8										
Ring Fringe	Collection	23	29									
	0	Al-Art	Bob									
	250	0.5	0.5									
	500	0	0									
	750	0	0									
	1000	-	0									
Net 0	1.1	1.7										
N. Sargasso Sea	Collection	25	26									
	0	0	0									
	250	0	0									
	500	0	0.7									
	750	0	0									
	1000	0	0									
Net 0	0	0										

Diaphus effulgens,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
Slope Water	Depth	0	<u>0.3</u>	0	<u>0</u>	0	0	<u>0.4</u>	0	<u>0</u>			
	250		<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>			
	500		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	750		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	1000		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	Net 0		<u>0.6</u>	0	<u>0</u>	0.2	0	<u>0</u>	0	<u>0</u>			
Ring Center	Collection	<u>20</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	<u>59</u>	61	<u>62</u>	65	<u>66</u>	
		<u>A1</u>	<u>A1</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	
	0												
	250		<u>0.2</u>	0	0	<u>0.5</u>	-	<u>2.5</u>	1.3	0	<u>0.5</u>	0	<u>1.9</u>
	500		<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
Ring Flank	Depth	0	<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
	250		<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
	500		<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
	1000		<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
	Net 0		<u>0</u>	0	0	<u>0</u>	<u>0</u>	0	0.4	<u>0</u>	0	<u>0</u>	
Ring Fringe	Collection	<u>22</u>	<u>33</u>				<u>64</u>						
		<u>A1</u>	<u>Bob</u>				<u>Frank</u>						
	0												
	250		<u>1.7</u>	-			<u>0.6</u>						
	500		<u>0</u>	<u>0</u>			<u>0</u>						
	750		<u>0</u>	<u>0</u>			<u>0</u>						
N. Sargasso Sea	Depth	0	<u>0.5</u>	<u>0</u>			<u>0</u>						
	250		<u>0.5</u>	<u>0</u>			<u>0</u>						
	500		<u>0.5</u>	<u>0</u>			<u>0</u>						
	750		<u>0.5</u>	<u>0</u>			<u>0</u>						
	1000		<u>0.5</u>	<u>0</u>			<u>0</u>						
	Net 0		<u>0.5</u>	<u>0</u>			<u>0</u>						
N. Sargasso Sea	Collection	<u>23</u>	<u>29</u>				<u>63</u>						
		<u>A1-Art</u>	<u>Bob</u>										
	0												
	250		<u>1.3</u>	<u>2.6</u>									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
N. Sargasso Sea	Depth	0	<u>0</u>	<u>0</u>			<u>Diaphus mollis,</u>						
	250		<u>0</u>	<u>0</u>			specimens/10,000 m ³						
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
	1000		<u>0</u>	<u>0</u>									
	Net 0		<u>0</u>	<u>0</u>									
N. Sargasso Sea	Collection	<u>25</u>	26				<u>63</u>						
		<u>0</u>	<u>0</u>				<u>0</u>						
	250		<u>0</u>	0.6			<u>0</u>						
	500		<u>0</u>	0.7			<u>0</u>						
	750		<u>0</u>	0			<u>0</u>						
	1000		<u>0</u>	0			<u>0</u>						
N. Sargasso Sea	Depth	0	<u>0.6</u>	0			<u>0</u>						
	250		<u>0.6</u>	0			<u>0</u>						
	500		<u>0.6</u>	0			<u>0</u>						
	750		<u>0.6</u>	0			<u>0</u>						
	1000		<u>0.6</u>	0			<u>0</u>						
	Net 0		<u>0.6</u>	0			<u>0</u>						

Diaphus mollis,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
Slope Water	Collection	24	36	38	39	56	57	67	68			
	0	0	0.4	1.3	0	0	0	0	0			
	250	0	0.7	0	2.0	0	0	0.4	0			
	500	0	0	0	-	-	0	0	0			
	750	-	0	-	-	-	0	0	0			
	1000	-	0	-	-	-	0	0	0			
Net 0	0	0	0.6	0	0	0	0.4	0				
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	250	0.6	0	0	0	-	0	0	0	0	0	0
	500	0	0.3	0	0	0.7	0	0	1.1	0	0	0.7
	750	0	0	0	0	0	0	0	0	-	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0
Net 0	0											
Ring Flank	Collection	22	33									
	0	Al	Bob	64 Frank								
	250	2.8	-	0								
	500	1.0	0	0.4								
	750	-	0	0								
	1000	-	0	0								
Net 0	0.2	5.8	0.4									
Ring Fringe	Collection	23	29									
	0	Al-Art	Bob									
	250	0.8	0									
	500	0.3	0	Diaphus rafinesquii,								
	750	0	0	specimens/10,000 m ³								
	1000	-	0									
Net 0	0	0										
N. Sargasso Sea	Collection	25	26	63								
	0	0.9	0	0								
	250	0	0	0								
	500	0	0	0								
	750	0	0	0								
	1000	0	0	0								
Net 0	0	0	0									

Diaphus rafinesquii,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	0	0	1.5	0	0.3	0.9	0	0			
	250	0	1.1	0	0	0.4	0.6	0	1.5	0			
	500	1.7	0	0	-	-	-	0.5	0	0.3			
	750	-	0	-	-	-	-	0	0	0			
	1000	-	0	-	-	-	-	0	0	0			
	Net 0	1.3	0	0	0	0	0	0	0	0			
	Net 0	1.3	0	0	0	0	0	0	0	0			
		Collection	20	35	27	28	32	58	59	61	62	65	66
			Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Center	Depth	0	0	0	0	0.5	-	1.3	0	0	0	0	0
	250	0	0	0	0	0	0	0	0.6	1.1	0	1.5	0
	500	0	1.0	0	0	0	0	0	0.6	0	0	0	0
	750	0.6	0	0	0	0	0	1.9	1.1	0.4	-	0.5	0
	1000	0	0.5	0	0	0	0	0.5	0.2	0	0	0	0
	Net 0	0	0.5	0	0	0	0	0.5	0.2	0	0	0	0
	Net 0	0	0.5	0	0	0	0	0.5	0.2	0	0	0	0
		Collection	22	33									
			Al	Bob									
Ring Flank	Depth	0	1.4	-									
	250	0	0	0									
	500	-	0	0									
	750	-	0	0									
	1000	-	0	0									
	Net 0	0	0	0									
	Net 0	0	0	0									
		Collection	23	29									
			Al-Art	Bob									
Ring Fringe	Depth	0	1.5	1.6									
	250	0	0	0									
	500	0.4	0	0									
	750	-	0	0									
	1000	-	0	0									
	Net 0	0	1.7	0									
	Net 0	0	1.7	0									
		Collection	25	26									
			0.9	0.5									
N. Sargasso Sea	Depth	0	0	0									
	250	0	0	0									
	500	0	0	0									
	750	0	0	0									
	1000	0	0	0									
	Net 0	0	0.5	0									
	Net 0	0	0.5	0									

Diogenichthys atlanticus,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	0.5	0	4.3	1.3	1.0	0.3	
	250	0	2.1	0	0.4		0	0	0	0	
	500	0.4	2.0	0	-		-	0	0	0	
	750	-	0	-	-		-	0	0	0	
	1000	-	0	-	-		-	0	0	0	
	Net 0	0	0	0	0		0	0	0.4	0.2	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		A1	A1	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0.4	0	0	0	-	0	0	0	0	0
	250	0	0.3	0	0	0	1.3	0	0.6	0	0
	500	0	0.3	0	0	0	0	6.5	4.3	3.5	0.9
	750	14.1	0	0	0	0.6	0	0	0	-	0
	Net 0	10.1	0	0	1.8	0	0	1.0	2.5	0.5	0.4
Ring Flank	Collection	22	33				64				
		A1	Bob				Frank				
	0	0.7	-				0				
	250	0.3	0				0				
	500	-	0				0.4				
	750	-	0				3.9				
	Net 0	3.0	0				0				
Ring Fringe	Collection	23	29								
		AI-Art	Bob								
	0	0	0								
	250	0	0								
	500	0	0								
	750	-	2.9								
	Net 0	0	0								
N. Sargasso Sea	Collection		25	26			63				
	0		0	0			0				
	250		0	0			0				
	500		0	0			0.4				
	750		0	0			0.9				
	1000		0	0			0.9				
	Net 0		0	0			0.9				

Hygophum benoiti,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0	0	0	5.6	-	1.1	0	0	0		
	250	0	0	5.4	0	19.6	0	0	0	0		
	500	0	0	0	0	-	-	0	0	0		
	750	-	0	-	-	-	-	0	0	0		
	1000	-	0	-	-	-	-	0	0	0		
	Net 0	0	0	3.5	2.6	0.6	0.7	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	0	0	0	21.9	-	0	0	0	0	0	0
	250	0	0.7	1.1	0	0	0	0	0	0	0	0
	500	0	2.4	0	0	0	0	0	0	0	0.6	0
	750	0	0	0	0	0	0	0	0	-	0	0
Ring Flank	1000	0	0	1.0	35.5	14.4	0	0.5	0	1.5	0	0
	Net 0	0	0	1.0	35.5	14.4	0	0.5	0	1.5	0	0
	Collection	22	33				64					
		Al	Bob				Frank					
	0	0	-				0					
	250	0	0				0					
Ring Fringe	Depth	500	0	0				0				
	750	-	0				0					
	1000	-	0				0					
	Net 0	0	13.3				0					
	Collection	23	29									
		Al-Art	Bob									
N. Sargasso Sea	0	0.3	3.2									
	250	0	0									
	500	0	35.0									
	750	-	0									
	1000	-	0									
	Net 0	0	3.3									
N. Sargasso Sea	Collection	25	26				63					
	0	4.8	0				0					
	250	0.4	0				0					
	500	0	5.3				0					
	750	5.6	1.1				0					
	1000	1.9	3.0				0					
N. Sargasso Sea	Net 0	1.9	3.0				0					

Hygophum hygomii
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	<u>1.5</u>	0	<u>1.8</u>	0	0.6	<u>0</u>	0	<u>0</u>			
	250		<u>0</u>	1.8	<u>0.2</u>	0.4	1.8	<u>0.4</u>	0	<u>0.3</u>			
	500		<u>0</u>	3.6	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	750		-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	1000		-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	Net 0		<u>1.9</u>	0	<u>0.3</u>	0	0.3	<u>0</u>	0	<u>0</u>			
		Collection	20	35	27	28	32	58	59	61	62	65	66
			Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Center	Depth	0	<u>0</u>	0	0	<u>21.0</u>	-	<u>0</u>	0	0	<u>0</u>	0	<u>0.4</u>
	250		<u>0</u>	0	1.5	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0.3</u>	0.4	<u>0</u>
	500		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0.6	1.4	<u>0</u>	2.3	<u>0</u>
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	-	0	<u>0</u>
	1000		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0.7	<u>2.0</u>	0.7	<u>0.3</u>
	Net 0		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	<u>0.7</u>	<u>2.0</u>	0.7	<u>0.3</u>
		Collection	22	33									
			Al	Bob									
Ring Flank	Depth	0	<u>0</u>	-									
	250		<u>0</u>	<u>0</u>									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
	1000		<u>0</u>	<u>0</u>									
	Net 0		<u>0</u>	<u>0</u>									
		Collection	23	29									
			Al-Art	Bob									
Ring Fringe	Depth	0	<u>0.3</u>	<u>2.6</u>									
	250		<u>0</u>	<u>0</u>									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
	1000		<u>0</u>	<u>0</u>									
	Net 0		<u>0</u>	<u>0.8</u>									
		Collection	25	26									
N. Sargasso Sea	Depth	0	<u>0.4</u>	0									
	250		<u>0</u>	0									
	500		<u>0</u>	0									
	750		<u>0</u>	0									
	1000		<u>0</u>	0									
	Net 0		<u>0</u>	0									

Lampanyctus alatus,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0.3	0	0	0	0	0	0	0.3	
	250		0	0	0	0	1.8	0	0	0.3	
	500		0	0.4	0	-	-	0	3.3	0	
	750		-	0	-	-	-	0	0	0	
	1000		-	0	-	-	-	0	0	0	
	Net 0	0	0	0	0	0	0.8	3.8	0.4	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	0	-	0	0	0	0	0.4
	250	0	0	0	0	0	0	0	0	2.2	0
	500	0	0	0	0	0	0.8	0	4.3	0.8	0.3
	750	0.6	0	0	0	0	1.9	2.8	0.4	-	4.3
Ring Flank	1000										
	Net 0	0	0	0	0	0	0.9	1.0	0.4	4.5	1.4
	Collection	22	33				64				
		Al	Bob				Frank				
	0	0	-				0				
	250	0	1.1				0				
Ring Fringe	500	0	0				0				
	750	-	0				0				
	1000	-	0				1.1				
	Net 0	0	0.8				0				
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0	0	0.5								
	250	0	0								
	500	0	0								
	750	-	0								
	1000										
	Net 0	0	1.7								
	Collection	25	26				63				
	0	3.0	0				0				
	250	0.4	0				0				
	500	0	0				0				
	750	0	7.9				0.9				
	1000										
	Net 0	0.6	2.0				0				

Lampanyctus crocodilus,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0	1.5	0	0.3	0	0	0	0	0		
	250	0	0	0.2	0		0	0.4	0	0.3		
	500	0	0	0	-		-	0	0.4	2.3		
	750	-	0	-	-		-	0	0	0		
	1000											
	Net 0	0	0.4	0.6	0		0.3	0.8	0.4	0		
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	0	0	0	0	-	0	0	0	0	0	0.4
	250	0.8	0	0	0	0	0	0	0	1.3	0	0
	500	0	1.0	0	0.4	0.6	0.8	0	0	1.5	0	1.6
	750	0	0.7	0	0	0	0	0	0	-	0	0
Ring Flank	1000	0	0	0	0	0	0	0.2	0	0	0	0.8
	Net 0	0	0	0	0	0	0	0.2	0	0	0	0.8
	Collection	22	33									
		Al	Bob									
	0	0	-									
	250	0	0									
Ring Fringe	Depth	500	0									
	750	-	0									
	1000	-	0									
	Net 0	0	0									
	Collection	23	29									
		Al-Art	Bob									
N. Sargasso Sea	0	4.0	1.6									
	250	0.3	0.5									
	500	0	0									
	750	-	0									
	1000	0	5.0									
	Net 0	0	5.0									
N. Sargasso Sea	Collection	25	26									
	0	0.4	0									
	250	0	0									
	500	0	2.0									
	750	0	0.5									
	1000	0	0									
N. Sargasso Sea	Net 0	0	0									
	Collection	63										
	0	0.4										
	250	0										
	500	0										
	750	0										
N. Sargasso Sea	1000	1.7										
	Net 0	2.7										

Lampanyctus cuprarius,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71								
		Collection	24	36	38	39	56	57	67	68				
Slope Water	Depth	0	<u>0.8</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0.3</u>				
	250		<u>0</u>	0	<u>0</u>	0	0.6	<u>0</u>	0	<u>0</u>				
	500		<u>0</u>	0.4	<u>0</u>	-	-	<u>0</u>	0.4	<u>0</u>				
	750		-	0	-	-	-	0	0	0				
	1000													
	Net 0		<u>0</u>	0	<u>0</u>	0.1	0	<u>0</u>	0	<u>0</u>				
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66		
		<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>		
	0		<u>0.4</u>	0	0	<u>0</u>	-	<u>0</u>	0	0	<u>0.9</u>	0	<u>3.9</u>	
	250		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>1.3</u>	0	0	<u>0.9</u>	0	<u>0</u>	
	500		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0.8</u>	1.2	5.0	<u>0.4</u>	1.7	<u>0.4</u>	
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>3.8</u>	0	0	-	0	<u>0</u>	
Ring Flank	1000		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>3.8</u>	0	0	-	0	<u>0</u>	
	Net 0		<u>0.9</u>	0	0	<u>0</u>	<u>0</u>	<u>0.5</u>	1.0	0	<u>5.5</u>	0	<u>0.8</u>	
	Collection	22	33											
		<u>Al</u>	<u>Bob</u>											
	0		<u>0.3</u>	-										
	250		<u>0</u>	<u>0</u>										
Ring Fringe	Depth	500		<u>0</u>										
	750		-	<u>0</u>										
	1000		-	<u>0</u>										
	Net 0		<u>0.5</u>	<u>0.8</u>										
	Collection	23	29											
		<u>Al-Art</u>	<u>Bob</u>											
N. Sargasso Sea	0		<u>2.5</u>	<u>0.5</u>										
	250		<u>0</u>	<u>0</u>										
	Depth	500		<u>0</u>										
	750		<u>0</u>	<u>0</u>										
	1000		-	<u>0</u>										
	Net 0		<u>0.5</u>	<u>0</u>										
	Collection	25	26											
	0		<u>0</u>	0										
	250		<u>0</u>	0										
	Depth	500		<u>0</u>	0									
	750		<u>0</u>	0										
	1000		<u>0</u>	0.5										
	Net 0		<u>0</u>	0										
	Collection	63												
	0		<u>0.4</u>											
	250		<u>0</u>											
	Depth	500		<u>0</u>										
	750		<u>0</u>	0.5										
	1000		<u>0</u>	0										
	Net 0		<u>0.5</u>	0										
	Collection	63												
	0		<u>0.4</u>											
	250		<u>0</u>											
	Depth	500		<u>0</u>										
	750		<u>0</u>	0.5										
	1000		<u>0</u>	0										
	Net 0		<u>0.5</u>	0										

Lampanyctus photonotus,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	0	0	0.3	0	0.9	0.4	0	1.3			
		250	0	0	0	0	0.6	0	0	0			
		500	0	0.4	0	-	-	0	0	0			
		750	-	0	-	-	-	0	0	0			
		1000	-	-	-	-	-	-	-	-			
Ring Center	Depth	Net 0	0	0	0	0	0.2	0	0	0			
		Collection	20	35	27	28	32	58	59	61	62	65	66
		0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
		250	0.4	0	0	0	-	0	0	0	11.4	0	4.2
		500	0.8	0	0.4	0	0	0	0	3.3	0.3	1.5	0
		750	0	0	0	0	0	11.5	10.0	0.7	0	8.0	0
Ring Flank	Depth	1000	0	0	0	0	0	9.4	7.2	0	-	0	0
		Net 0	3.0	0.9	0	0	0.6	0.5	2.2	1.4	12.5	2.5	1.1
		Collection	22	33									
		0	Al	Bob									
		250	5.5	-									
		500	0	1.1									
Ring Fringe	Depth	750	-	0									
		1000	-	0									
		Net 0	0.9	1.7									
		Collection	23	29									
		0	Al-Art	Bob									
		250	3.5	1.1									
N. Sargasso Sea	Depth	500	0	0									
		750	0.4	0									
		1000	-	0.7									
		Net 0	0.5	1.7									
		Collection	25	26									
		0	0.9	0									
N. Sargasso Sea	Depth	250	0	0									
		500	0	0.7									
		750	0	0									
		1000	1.9	0									
		Net 0	0	0									
		Collection	63										
0	2.8 <th colspan="10"></th>												

Lampanyctus pusillus
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0											
			0	0	0	0	0	0	0	0			
	250		0	0	0	0	0	0	0	0			
	500		0	0	0	0	0	0	0	0			
	750		0	0	0	-	-	0	0	0			
	1000		-	0	-	-	-	0	0	0			
Net 0			0	0	0	0	0	0	0	0			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0												
		0.2	0	0	0	-	0	0	0	0	0	0	
	250		0	0	0	0	0	0	0	0	0.4	0	
	500		0	0	0	0	0	0	0	0	0	0	
Ring Flank	Depth	0											
			0	0	0	0	0	0	0	0	0	0	
	250		0	0	0	0	0	0	0	0	0	0	
	500		0	0	0	0	0	0.6	0.7	0	0	0	
	750		0	0	0	0	0	0	-	0	0	0	
	1000		0	0	0	0	0	0	-	0	0	0	
Net 0			0	0	0	0	0.5	0.5	0	0	0	0.5	
Ring Fringe	Collection	22	33				64						
		Al	Bob				Frank						
	0												
		1.4	-				0						
	250		0				0						
	500		0				0						
N. Sargasso Sea	Depth	0											
			0	0									
	250		0	0			0						
	500		0	0			0						
	750		0	0			0						
	1000		0	0			0						
Net 0			0	0			0						

Lepidophanes gaussi,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	0.3	0	1.0	0	0.6	0.4	0	0.3			
	250	0	7.1	0	1.2	4.1	0	0	0				
	500	0	1.2	0	-	-	0	0	0				
	750	-	0	-	-	-	0	0	0				
	1000	-	0	-	-	-	0	0	0				
	Net 0	1.3	0.4	0	0	1.7	0	0.4	0				
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0	0.8	0	0	1.0	-	0	0	0	3.2	0	1.9	
	250	0	0	0.7	0	0	0	0	1.7	0	0	0	
	500	0	0	0	0	0	0	0	5.7	0	4.3	0	
	750	0	0	0	0	0	0	0	0	-	0	0	
Ring Flank	1000	0	0	0	0	0	0	0	0	-	0	0	
	Net 0	0.4	0	0	0	0	0	0	2.1	0	1.1	0	
	Collection	22	33										
		Al	Bob										
	0	0	-										
	250	0	0										
Ring Fringe	Depth	500	0										
	750	-	0										
	1000	-	0										
	Net 0	0	0										
	Collection	23	29										
		Al-Art	Bob										
N. Sargasso Sea	0	0.3	4.2										
	250	0	0										
	500	0	0										
	750	-	0										
	1000	-	0										
	Net 0	0.5	1.7										
N. Sargasso Sea	Collection	25	26										
	0	0	0										
	250	0	0										
	500	0	0										
	750	0	0										
	1000	0	0										
N. Sargasso Sea	Net 0	0	0										
	Collection	63											
	0	0.4											
	250	0											
	500	0											
	750	0											

Lepidophanes guentheri,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71					
Slope Water	Collection	<u>24</u>	36	<u>38</u>	39		56	<u>57</u>	67	<u>68</u>		
	0	<u>7.7</u>	0	<u>0.8</u>	0		4.3	<u>5.2</u>	13.0	<u>2.1</u>		
	250	<u>0</u>	0	<u>0</u>	1.2		0	<u>1.6</u>	0	<u>0</u>		
	500	<u>0</u>	0	<u>0</u>	-		-	<u>0.9</u>	0	<u>0</u>		
	750	-	0	-	-		-	<u>0</u>	0	<u>0</u>		
	1000	-	-	-	-		-	-	-	-		
	Net 0	<u>15.0</u>	0	<u>0</u>	0.2		0	<u>2.1</u>	2.3	<u>6.3</u>		
Ring Center	Collection	<u>20</u>	35	<u>27</u>	<u>28</u>	<u>32</u>	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
	0	<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	Em	Frank	<u>Frank</u>	Frank	<u>Frank</u>
	250	<u>0.2</u>	0	0	<u>0</u>	-	<u>1.3</u>	0	0	<u>1.8</u>	0	<u>0.4</u>
	500	<u>0</u>	0.7	0	<u>0</u>	<u>0</u>	<u>0</u>	2.2	1.7	<u>0</u>	3.0	<u>0</u>
	750	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	1000	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	-	<u>0</u>	0	<u>0</u>
	Net 0	<u>0.4</u>	0.9	0	<u>0</u>	<u>0.6</u>	<u>0.9</u>	0.2	2.5	<u>1.5</u>	0.4	<u>0.5</u>
Ring Flank	Collection	<u>22</u>	<u>33</u>				<u>64</u>					
	0	<u>Al</u>	<u>Bob</u>				<u>Frank</u>					
	250	<u>0</u>	-				<u>1.2</u>					
	500	<u>0</u>	<u>0</u>				<u>0</u>					
	750	-	<u>0</u>				<u>0</u>					
	1000	-	<u>0</u>				<u>0</u>					
	Net 0	<u>0</u>	<u>1.7</u>				<u>0.9</u>					
Ring Fringe	Collection	<u>23</u>	<u>29</u>									
	0	<u>Al-Art</u>	<u>Bob</u>									
	250	<u>0</u>	<u>3.2</u>									
	500	<u>0</u>	<u>0</u>									
	750	<u>0</u>	<u>5.0</u>									
	1000	-	<u>0</u>									
	Net 0	<u>0</u>	<u>1.7</u>									
Sea	Collection		<u>25</u>	26			<u>63</u>					
	0		<u>0.9</u>	0			<u>0</u>					
	250		<u>0</u>	1.2			<u>0</u>					
			<u>0</u>	0			<u>0</u>					
			<u>0</u>	0			<u>0</u>					
			<u>0</u>	0			<u>0</u>					

Lobianchia dofleini
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	0.3	0	0	0	2.0	0	0	0.3			
		250	0	2.9	0	1.6	0	0	0.4	0			
		500	0	0	0.7	-	-	0	0	0			
		750	-	0.7	-	-	-	0	0	0			
		1000	-	0.7	-	-	-	0	0	0			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
		0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
		250	0	0	0	0.5	-	0	0	0	0	0	0
		500	0	0	0	0	0	0	0	0	0	0	0
		750	0	0.7	0	0	0	0	0	0	0	0	0
		1000	0	0	0	0	0	0	0	-	0	0	0
Ring Flank	Depth	Collection	22	33									
		0	Al	Bob									
		250	0	-									
		500	-	0									
		750	-	0									
		1000	-	0									
Ring Fringe	Depth	Collection	23	29									
		0	Al-Art	Bob									
		250	0	0.5									
		500	0	0									
		750	0	0									
		1000	-	0									
N. Sargasso Sea	Depth	Collection	25	26									
		0	0	0									
		250	0	0									
		500	0	0									
		750	0	0									
		1000	0	0									

Myctophum affine,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71					
Slope Water	Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
	0	<u>1.8</u>	0	<u>0.5</u>	0	1.1	<u>0.4</u>	0.5	<u>0.7</u>			
	250	<u>0.7</u>	2.1	<u>0.2</u>	0.8	0	<u>0</u>	0	<u>0</u>			
	500	<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	750	-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	1000	-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	Net 0	<u>3.1</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>			
Ring Center	Collection	<u>20</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	<u>59</u>	61	<u>62</u>	65	<u>66</u>
	0	<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	Frank	Frank	Frank	Frank
	250	<u>0</u>	0	0	<u>1.0</u>	-	<u>0</u>	0	0.8	<u>0</u>	0	<u>3.8</u>
	500	<u>0.8</u>	0.7	1.9	<u>0</u>	<u>0</u>	<u>0.7</u>	0.6	6.7	<u>1.3</u>	4.1	<u>0</u>
	750	<u>0</u>	0.3	0.4	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	1000	<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	Net 0	<u>0</u>	0	0	<u>1.8</u>	<u>0</u>	<u>0</u>	0	<u>0.5</u>	0	<u>0</u>	
Ring Flank	Collection	<u>22</u>	<u>33</u>									
	0	<u>Al</u>	<u>Bob</u>									
	250	<u>2.1</u>	-									
	500	<u>0</u>	<u>1.1</u>									
	750	-	<u>0</u>									
	1000	-	<u>0</u>									
	Net 0	<u>1.8</u>	<u>0.8</u>									
Ring Fringe	Collection	<u>23</u>	<u>29</u>									
	0	<u>Al-Art</u>	<u>Bob</u>									
	250	<u>3.8</u>	<u>12.1</u>									
	500	<u>0</u>	<u>0.5</u>									
	750	<u>0</u>	<u>0</u>									
	1000	-	<u>0</u>									
	Net 0	<u>0</u>	<u>0.8</u>									
N. Sargasso Sea	Collection		<u>25</u>	26								
	0		<u>1.3</u>	0								
	250		<u>0.4</u>	8.2								
	500		<u>0</u>	<u>0</u>								
	750		<u>0</u>	<u>0</u>								
	1000		<u>0</u>	<u>0</u>								
	Net 0		0	1.0								
<i>Notolychnus valdiviae</i> , specimens/10,000 m ³												

Notolychnus valdiviae,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Collection	24	36	38	39	56	57	67	68				
	0	0	0	1.0	0	0	2.2	0	0.3				
	250	0	0	0	0	1.8	0	0	0				
	500	0	0	0	-	-	0	0.4	0				
	750	-	1.1	-	-	-	0	1.2	0				
	1000	0	0.4	0	0.3	1.0	0.4	0	0.2				
Net 0		0	0.4	0	0.3	1.0	0.4	0	0.2				
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0	0	0	0	1.0	-	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	
	500	0	0	0	0	0	0	0	0	0	0	0	
	750	0	0.4	0	0	0	0	0	0.4	-	0	0	
1000		0	0	0	0	0	0	0	0	0.5	0	0	
Net 0		0	0	0	0	0	0	0	0	0.5	0	0	
Ring Flank	Collection	22	33										
		Al	Bob										
	0	0	-										
	250	0	0										
	500	0	0										
	750	-	0										
1000		0	0										
Net 0		0	0.8										
Ring Fringe	Collection	23	29										
		Al-Art	Bob										
	0	0	0										
	250	0	0										
	500	0	0										
	750	0	0.8										
1000		-	0										
Net 0		0	1.7										
N. Sargasso Sea	Collection	25	26										
	0	0	0										
	250	0	0										
	500	0	0										
	750	0.5	0										
	1000	0	8.9										
Net 0		0	2.0										

Notoscopelus resplendens,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	0	1.1	0.3	0	0	0	0	0			
	250	0	0	0	0	0	0	0	0	0.3			
	500	0	0	0	-	-	-	0	0	0			
	750	-	0	-	-	-	-	0	0	0			
	1000	0	0	0	0	0	0	0	0	0			
	Net 0	0	0	0	0	0	0	0	0	0			
		Collection	20	35	27	28	32	58	59	61	62	65	66
Ring Center	Depth	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	250	0	0	0	0	0	0	0	0	0.5	0.5	0.8	
	500	3.3	1.3	0	0	0.7	0	0.6	1.7	0	1.1	0	
	750	0	0	0	0	0	0	0	0	0	0	0	
	1000	0	0	0	0	0	0	0	0	-	0	0	
	Net 0	0.9	1.8	0	0	0	0.5	0.5	0.4	0.5	0	0	
		Collection	22	33									
Ring Flank	Depth	0	Al	Bob									
	250	0	0	0									
	500	1.9	4.4	0									
	750	-	0	0									
	1000	-	0	0									
	Net 0	0.5	2.5	0									
		Collection	23	29									
Ring Fringe	Depth	0	Al-Art	Bob									
	250	0.3	0	0									
	500	0	2.1	0									
	750	0	0	0									
	1000	-	0	0									
	Net 0	0	6.7	0									
		Collection	25	26									
N. Sargasso Sea	Depth	0	0	0									
	250	1.1	0	0									
	500	0	0	0									
	750	0	0	0									
	1000	0	0	0									
	Net 0	0.6	0	0									
		Collection	63										

Argyrolepecus aculeatus,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Collection	24	36	38	39	56	57	67	68				
	0	0	0	0.3	1.3	0	0	0	0				
	250	0	0	0.7	0	0	0	0.4	0.6				
	500	0	0	0	-	-	0	0	0				
	750	-	0	-	-	-	0	0	0				
	1000	0	0	0	0	0.3	2.1	0.4	0.2				
	Net 0	0	0	0	0	0.3	2.1	0.4	0.2				
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0	0	0.4	0	0	-	0.6	0	0	0	0	0	
	250	4.2	4.7	0	0	0	4.7	0	0.6	1.3	1.9	3.7	
	500	1.5	0	0	0	0	10.8	22.9	0	0	0	0	
	750	0	0	0	0	0	0	0	0	-	0	0	
	1000	0	0	0	0	0	0	0	0	-	0	0	
	Net 0	3.5	5.5	0	1.8	0	4.1	3.9	0.7	0.5	0	0	
Ring Flank	Collection	22	33										
		Al	Bob										
	0	0	0										
	250	0	0										
	500	22.9	0										
	750	-	0										
	1000	-	0										
	Net 0	0.9	0										
Ring Fringe	Collection	23	29										
		Al-Art	Bob										
	0	0.3	0										
	250	1.6	1.1										
	500	0.9	4.2										
	750	-	0										
	1000	1.1	15.8										
N. Sargasso Sea	Collection	25	26										
	0	0	0										
	250	4.6	0.6										
	500	0	0										
	750	0	0										
	1000	0	0										
	Net 0	1.3	0										

Argyropelecus hemigymnus,
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0.4	0	0	0	0.4	0	0	
	250	0	0	0	0	0	0	0.4	0	0	
	500	0	0	0	0	0	0	0.4	0	0	
	750	2.2	1.2	2.1	-	-	-	2.3	0.7	2.9	
	1000	-	1.8	-	-	-	-	0.9	0.4	0	
	Net 0	1.3	2.3	0	1.0	0.7	1.3	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	0	-	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0
	500	0	0	0	0	0	0	0	0	0	0
	750	0	0.3	0.8	1.3	0.6	0.8	0	0	0	0.4
Ring Flank	Depth	0	1.1	0	0	0	1.3	1.1	0.4	-	0
	1000	0.4	0.5	0	1.8	0.6	2.3	0.2	0	0.5	0
	Net 0	0.4	0.5	0	1.8	0.6	2.3	0.2	0	0.5	0
	Collection	22	33				64				
		Al	Bob				Frank				
	0	0	0				0				
Ring Fringe	Depth	0	0				0				
	250	0	0				0				
	500	0	0				0				
	750	-	1.3				0.4				
	1000	-	0				4.4				
	Net 0	0.5	0.8				1.3				
N. Sargasso Sea	Collection	23	29								
		Al-Art	Bob								
	0	0	0								
	250	0	0								
	500	0	0								
	750	0	0								
N. Sargasso Sea	Depth	-	1.4								
	1000	0	2.5								
	Net 0	0	2.5								
	Collection		25	26			63				
	0		0	0			0				
	250		0	0			0				
N. Sargasso Sea	Depth		0	0			0				
	500		0	0			0				
	750		0	0			0.4				
	1000		1.3	1.6			1.7				
	Net 0		1.9	2.0			2.3				

Sternoptyx diaphana
specimens/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	<u>1.8</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
	250		<u>0</u>	0	<u>0.2</u>	0	0	<u>0</u>	0	<u>0</u>	
	500		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0.3</u>	
	750		-	0	-	-	-	<u>0</u>	0	<u>0</u>	
	1000										
	Net 0		<u>0.6</u>	0.8	<u>0.3</u>	0.8	0.3	<u>1.3</u>	0	<u>0</u>	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0										
	250		<u>0.4</u>	0	0	<u>0</u>	-	<u>0</u>	0	0	<u>0</u>
	500		<u>0</u>	0	0.4	<u>0</u>	<u>0.7</u>	<u>0</u>	0	0	<u>0.3</u>
	750		<u>0</u>	0.7	1.2	<u>0</u>	<u>0</u>	0.6	2.1	<u>0</u>	0.4
Ring Flank	Depth	0									
	250		<u>0</u>								
	500		<u>0</u>								
	750		<u>0</u>								
	1000		<u>0</u>								
	Net 0		<u>0.4</u>	0	0.5	<u>1.8</u>	<u>0.6</u>	<u>0.5</u>	0	0	<u>0.5</u>
Ring Fringe	Collection	22	33				64				
		Al	Bob				Frank				
	0										
	250		<u>4.1</u>	<u>0</u>			<u>0.3</u>				
	500		<u>0</u>	<u>0</u>			<u>0.4</u>				
	750		<u>0</u>	<u>0</u>			<u>0</u>				
N. Sargasso Sea	Depth	0									
	250		<u>0</u>	<u>0</u>			<u>0</u>				
	500		<u>0</u>	<u>0</u>			<u>0</u>				
	750		<u>0</u>	<u>0</u>			<u>0</u>				
	1000		<u>0</u>	<u>0</u>			<u>0</u>				
	Net 0		<u>1.1</u>	<u>0</u>			<u>0</u>				
N. Sargasso Sea	Collection	23	29								
		Al-Art	Bob								
	0										
	250		<u>2.0</u>	<u>13.7</u>							
	500		<u>0</u>	<u>0</u>							
	750		<u>0</u>	<u>0</u>							
N. Sargasso Sea	Depth	0									
	250		<u>0</u>	<u>0</u>							
	500		<u>0</u>	<u>0</u>							
	750		<u>0</u>	<u>0</u>							
	1000		<u>0</u>	<u>0</u>							
	Net 0		<u>1.1</u>	<u>0</u>							
N. Sargasso Sea	Collection	25	26				63				
	0		<u>0</u>	0			<u>1.2</u>				
	250		<u>0</u>	0			<u>0</u>				
	500		<u>0</u>	0			<u>0</u>				
	750		<u>0</u>	0			<u>0</u>				
N. Sargasso Sea	Depth	0									
	250		<u>0</u>	0			<u>0</u>				
	500		<u>0</u>	0			<u>0</u>				
	750		<u>0</u>	0			<u>0</u>				
	1000		<u>0</u>	0			<u>0</u>				
	Net 0		<u>0</u>	0.5			<u>0</u>				

Gonostoma elongatum,
specimens/10,000 m³

SPECIES

FISH VOLUME PER UNIT VOLUME OF WATER BY DEPTH INTERVAL

WITHIN STATIONS, KNORR CRUISES

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
Slope Water	Collection	24	36	38	39	56	57	67	68			
	0	1.79	0	4.23	.04	5.71	.26	0.4	7.67			
	250	2.67	12.1	2.33	16.0	2.06	.28	6.67	9.09			
	500	5.00	0	1.16	-	-	7.95	.89	8.71			
	750	-	0	-	-	-	1.14	2.20	5.18			
	1000 Net 0	3.44	.96	2.21	3.06	15.0	7.08	.38	3.95			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	0	0	0	46.67	-	0	0	.08	0	.05	0
	250	0	0	7.04	1.00	4.43	0	0	1.38	.78	.37	.81
	500	.92	.34	5.38	0	2.19	0	0	2.29	1.73	2.00	3.60
	750	.06	0	0	1.19	0	2.81	.55	1.96	-	.48	.96
1000 Net 0	1.09	0	1.19	16.4	23.38	.09	1.71	4.29	2.30	.89	.86	
Ring Flank	Collection	22	33									
		Al	Bob									
	0	0	-									
	250	0	.22									
	500	-	4.63									
	750	-	0									
1000 Net 0	.02	4.33										
Ring Fringe	Collection	23	29									
		Al-Art	Bob									
	0	0	0									
	250	0	0									
	500	0	0									
	750	0	0									
1000 Net 0	0	0										
N. Sargasso Sea	Collection	25	26									
	0	0	0									
	250	0	0									
	500	0	0									
	750	0	0									
	1000 Net 0	0	0									

Benthosema glaciale,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection 24	36	38	39	56	57	67	68			
Slope Water	Depth	0										
		.15	0	.10	0	.03	.04	0	0			
	250	0	.07	0	.04	0	0	.04	0			
	500	0	0	0	-	-	0	0	0			
	750	-	.04	-	-	-	0	0	0			
	1000											
	Net 0	.38	.04	0	0	0	0	0	0			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0											
		.04	0	0	.19	-	0	0	0	0	0	.08
	250	0	.03	.07	0	0	0	0	.33	0	.15	0
	500	0	0	0	0	0	0	.06	0	0	.03	0
	750	0	0	0	0	0	0	0	-	0	0	0
Ring Flank	1000											
	Net 0	0	0	0	.09	0	0	0	0	0	.04	.05
	Collection	22	33									
		Al	Bob									
	0											
		.10	-									
	250	0	0									
Ring Fringe	500	0	0									
	750	-	0									
	1000											
	Net 0	0	.08									
	Collection	23	29									
		Al-Art	Bob									
	0											
N. Sargasso Sea		.02	.11									
	250	0	0									
	500	0	.08									
	750	-	0									
	1000											
	Net 0	.05	.08									
	N. Sargasso Sea	Collection	25	26								
0		0	0									
		.04										
250		0	0									
500		0	0									
750		0	0									
1000												
Net 0	0	0										

Benthosema suborbitale,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	.05	0	0	0	.03	.09	0	.03			
		250	0	.11	0	.12	0	0	.04	0			
		500	0	0	0	-	-	0	0	0			
		750	-	0	-	-	-	0	0	0			
		1000	-	0	-	-	-	0	0	0			
		Net 0	.12	0	.06	0	.08	0	0	0			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
			AI	AI	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
		0	.02	0	0	.10	-	.62	.27	0	.50	0	.04
		250	0	0	.07	0	0	0	.22	.28	0	.15	0
		500	0	.76	0	0	0	0	.18	0	0	.17	0
		750	0	0	0	0	0	0	0	0	-	0	0
		Net 0	.09	.09	0	.09	0	0	.39	0	.15	.11	0
Ring Flank	Depth	Collection	22	33									
			AI	Bob									
		0											
		250	1.10	-									
		500	.03	0									
		750	-	0									
		Net 0	.53	.17									
Ring Fringe	Depth	Collection	23	29									
			AI-Art	Bob									
		0											
		250	1.38	1.32									
		500	0	0									
		750	.04	0									
		Net 0	0	.33									
N. Sargasso Sea	Depth	Collection	25	26									
		0											
		250	0	0									
		500	0	0									
		750	0	1.33									
		1000	0	.26									
		Net 0	0	.30									

Bolinichthys indicus,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	<u>1.59</u>	0	<u>1.03</u>	0	.07	<u>.04</u>	.05	<u>.47</u>			
	250		<u>0</u>	0	<u>0</u>	0	1.47	<u>0</u>	2.59	<u>.06</u>			
	500		<u>0</u>	0	<u>0</u>	-	-	<u>.36</u>	0	<u>.32</u>			
	750		-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	1000												
	Net 0		<u>.31</u>	0	<u>0</u>	0	.05	<u>0</u>	.12	<u>.93</u>			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
			Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0		<u>.02</u>	0	0	<u>0</u>	-	<u>0</u>	0	.08	<u>.23</u>	0	<u>.62</u>
	250		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	1.22	<u>.31</u>	.37	<u>.04</u>
	500		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	3.21	<u>1.92</u>	4.57	<u>1.60</u>
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	.22	-	.05	<u>0</u>
	1000		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0				
Net 0		<u>.30</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	.18	<u>.10</u>	.32	<u>.22</u>	
Ring Flank	Depth	Collection	22	33									
			Al	Bob									
	0		<u>.07</u>	-									
	250		<u>0</u>	<u>0</u>									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
	1000		<u>0</u>	<u>0</u>									
Net 0		<u>.09</u>	<u>0</u>										
Ring Fringe	Depth	Collection	23	29									
			Al-Art	Bob									
	0		<u>.20</u>	<u>0</u>									
	250		<u>0</u>	<u>0</u>									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
	1000		<u>0</u>	<u>0</u>									
Net 0		<u>.05</u>	<u>0</u>										
N. Sargasso Sea	Depth	Collection		25	26								
				<u>0</u>	0								
	0			<u>0</u>	0								
	250			<u>0</u>	0								
	500			<u>0</u>	0								
	750			<u>0</u>	0								
	1000			<u>0</u>	0								
Net 0			<u>0</u>	0									

Ceratoscopelus maderensis.

m1/10,000 m³

Ceratoscopelus maderensis.
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0										
			.33	0	.18	0	.07	.35	0	.73		
	250		0	0	0	0	1.47	0	0	0		
	500		0	0	0	-	-	0	.04	0		
	750		-	.04	-	-	-	0	.24	0		
	1000											
	Net 0		.06	.08	0	.06	.05	.33	0	.37		
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0											
			.30	0	0	.10	.25	0	0	1.82	.05	1.85
	250		0	0	0	0	0	0	0	0	0	0
	500		0	0	0	0	.15	.12	0	.38	0	0
	750		0	0	.04	0	.25	1.00	1.96	-	.19	0
1000												
Net 0		.43	0	0	1.64	0	.14	.73	1.36	.55	.71	.38
Ring Flank	Collection	22	33				64					
		Al	Bob				Frank					
	0											
			2.41				.32					
	250											
	Depth		.03				0					
	500						.04					
750						.11						
1000												
Net 0		.27				.87						
Ring Fringe	Collection	23	29									
		Al-Art	Bob									
	0											
			3.50									
	250											
	Depth		0									
	500											
750		.04										
1000												
Net 0		3.68										
N. Sargasso Sea	Collection		25	26			63					
	0		0	0			.36					
	250		0	0			0					
	Depth		0	0			0					
	500		0	0			0					
	750		0	.05								
	1000											
Net 0		0	0									
<i>Ceratoscopelus warmingii</i> , ml/10,000 m ³												

AD-A084 999

WOODS HOLE OCEANOGRAPHIC INSTITUTION MASS

F/G 8/1

MIDWATER FISH DATA REPORT: COLD CORE RINGS TIME SERIES CRUISES --ETC(U)

MAR 80 R H BACKUS, J E CRADDOCK

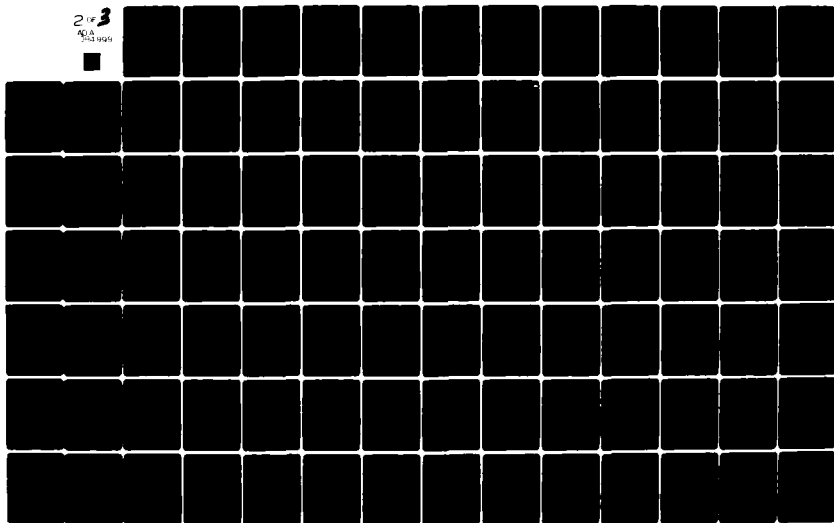
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2 of 3
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499

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
Slope Water	Depth	0	<u>.03</u>	0	<u>.13</u>	0	0	<u>0</u>	.15	<u>0</u>			
	250		<u>0</u>	.07	<u>0</u>	.28	0	<u>0</u>	0	<u>0</u>			
	500		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	750		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	1000		<u>0</u>	0	<u>0</u>	-	-	<u>0</u>	0	<u>0</u>			
	Net 0		<u>1.38</u>	0	<u>.03</u>	0	0	<u>0</u>	0	<u>0</u>			
Ring Center	Collection	<u>20</u>	<u>Al</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
	Depth	0		Al	Bob	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	Em	Frank	<u>Frank</u>	Frank	<u>Frank</u>
	250		<u>0</u>	0		<u>.10</u>	-	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	500		<u>0</u>	0		<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	750		<u>0</u>	0		<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	1000		<u>0</u>	0		<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
Net 0		<u>0</u>	0		<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>	
Ring Flank	Collection	<u>22</u>	<u>Al</u>	<u>33</u>									
	Depth	0		<u>Bob</u>									
	250		<u>0</u>	-									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
	1000		<u>0</u>	<u>0</u>									
Ring Fringe	Collection	<u>23</u>	<u>Al-Art</u>	<u>29</u>									
	Depth	0		<u>Bob</u>									
	250		<u>.05</u>	<u>.05</u>									
	500		<u>0</u>	<u>0</u>									
	750		<u>0</u>	<u>0</u>									
	1000		<u>0</u>	<u>0</u>									
N. Sargasso Sea	Collection			<u>25</u>	26								
	Depth	0		<u>0</u>	0								
	250			<u>0</u>	0								
	500			<u>0</u>	0								
	750			<u>0</u>	0								
	1000			<u>0</u>	0								
Net 0			<u>0</u>	0									
<u>Diaphus dumerilii,</u> ml/10,000 m ³													

Diaphus dumerilii,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	0	0	0	0	0	0	
		250	0	0	0	0	0	0	0	0	
		500	0	0	0	-	-	0	0	0	
		750	0	0	0	-	-	0	0	0	
		1000	0	0	0	0	0	0	0	0	
	Net 0	0	0	0	0	0	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		A1	A1	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	0	-	0	0	0	1.23	0
	250	0	0	15.9	0	0	0	.06	16.1	0	2.59
	500	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	-	0
Ring Flank	1000	0	0	0	0	0	0	0	0	0	0
	Net 0	0	0	0	0	0	0	0	0	0	0
	Collection	22	33				64				
		A1	Bob				Frank				
	0	0	-				.11				
	250	0	0				0				
Ring Fringe	500	0	0				0				
	750	-	0				0				
	1000	0	0				0				
	Net 0	.02	12.4				0				
	Collection	23	29								
		A1-Art	Bob								
N. Sargasso Sea	0	.15	.05								
	250	0	0								
	500	0	0								
	750	-	0								
	1000	0	0								
	Net 0	34.7	1.83								
N. Sargasso Sea	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
	500	0	1.33				0				
	750	0	0				0				
	1000	0	0				0				

Diaphus effulgens,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0									
			<u>.05</u>	0	0	0	0	<u>.22</u>	0	0	
	250		0	0	0	0	0	0	0	0	
	500		0	0	0	-	-	0	0	0	
	750		0	0	-	-	-	0	0	0	
	1000		-	0	-	-	-	0	0	0	
		Net 0	<u>.38</u>	0	0	.04	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0										
			<u>.22</u>	0	0	<u>.10</u>	<u>.19</u>	.40	0	<u>.18</u>	0
	250		0	0	0	0	0	0	0	0	<u>.35</u>
	500		0	0	0	0	0	0	0	0	0
Ring Flank	Depth	0									
			0	0	0	0	0	0	0	0	0
	250		0	0	0	0	0	0	0	0	0
	500		0	0	0	0	0	0	0	0	0
	750		0	0	0	0	0	0	0	0	0
	1000		0	0	0	0	0	0	.04	0	0
		Net 0	0	0	0	0	0	0	0	0	0
Ring Fringe	Collection	22	33				64				
		Al	Bob				Frank				
	0										
			<u>.76</u>	-			<u>.24</u>				
	250		0	0			0				
	500		0	0			0				
N. Sargasso Sea	Depth	0									
			0	0			0				
	250		0	0			0				
	500		0	0			0				
	750		0	0			0				
	1000		0	0			0				
		Net 0	<u>.53</u>	0			0				
N. Sargasso Sea	Collection	23	29								
		Al-Art	Bob								
	0										
			<u>.45</u>	<u>1.32</u>							
	250		0	0							
	500		0	0							
N. Sargasso Sea	Depth	0									
			0	0							
	250		0	0							
	500		0	0							
	750		0	0							
	1000		0	0							
		Net 0	<u>.06</u>	0			0				

Diaphus mollis,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	.04	.10	0	0	0	0	0	
		250	0	.18	0	.16	0	0	1.70	0	
		500	0	0	0	-	-	0	0	0	
		750	-	0	-	-	-	0	0	0	
		1000	-	0	-	-	-	0	0	0	
	Net 0	0	0	0	.06	0	0	0	1.73	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	.02	0	0	0	-	0	0	0	0	0
	250	0	1.37	0	0	5.57	0	0	7.22	0	0
	500	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0
Ring Flank	1000	0	0	0	0	0	0	0	0	-	0
	Net 0	0	.09	0	0	0	0	0	0	0	2.14
	Collection	22	33				64				
		Al	Bob				Frank				
	0	.03	-				0				
	250	5.81	0				2.39				
Ring Fringe	500	-	0				0				
	750	-	0				0				
	1000	0	0				0				
	Net 0	.02	1.58				1.74				
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0	.02	0								
	250	1.61	0								
	500	0	0								
	750	-	0								
	1000	0	0								
	Net 0	0	0								
N. Sargasso Sea	Collection	25	26				63				
	0	.09	0				0				
	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
N. Sargasso Sea	Net 0	0	0				0				
	Collection	25	26				63				
	0	.09	0				0				
	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
N. Sargasso Sea	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
	0	.09	0				0				
	250	0	0				0				
	500	0	0				0				
N. Sargasso Sea	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
	0	.09	0				0				
	250	0	0				0				
N. Sargasso Sea	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
	0	.09	0				0				
N. Sargasso Sea	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
N. Sargasso Sea	0	.09	0				0				
	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				

Diaphus rafinesquii,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	.13	0	.03	.04	0	0	
	250	0	0	.07	0	.04	.06	0	.11	0	
	500	0	0	0	0	-	-	.05	0	.03	
	750	.04	0	0	-	-	-	0	0	0	
	1000	-	0	-	-	-	-	0	0	0	
	Net 0	.06	0	0	0	0	0	0	0	0	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	.05	-	.06	0	0	0	0
	250	0	0	0	0	0	0	.06	.06	0	.04
	500	0	.07	0	0	0	0	.06	0	0	0
	750	.06	0	0	0	0	.06	.06	.04	-	.05
	Net 0	0	.05	0	0	0	.05	.02	0	0	0
Ring Flank	Collection	22	33				64				
		Al	Bob				Frank				
	0	.03	-				.03				
	250	0	0				0				
	500	-	0				0				
	750	-	0				.06				
	Net 0	0	0				0				
Ring Fringe	Collection	23	29								
		Al-Art	Bob								
	0	.02	.05								
	250	0	0								
	500	.04	0								
	750	-	0								
	Net 0	0	.17								
N. Sargasso Sea	Collection	25	26				63				
	0	.04	.05				0				
	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
	1000	0	.05				0				
	Net 0	0	.05				0				

Diogenichthys atlanticus,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	.03	0	.31	.04	.30	.10	
	250	0	0	.04	0	.04	0	0	0	0	
	500	0	0	.04	0	-	-	0	0	0	
	750	.35	0	0	-	-	-	0	0	0	
	1000	-	0	0	-	-	-	0	0	0	
	Net 0	0	0	0	0	0	0	0	.04	.05	
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		A1	A1	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	.02	0	0	0	-	0	0	0	0	0
	250	0	.03	0	0	0	.07	0	.11	0	0
	500	0	.28	0	0	0	0	.65	.50	.38	.09
	750	1.24	0	0	0	.06	0	0	0	-	0
Ring Flank	1000	.74	0	0	.73	0	0	.07	.29	.05	.18
	Net 0	.74	0	0	.73	0	0	.07	.29	.05	.35
	Collection	22	33				64				
		A1	Bob				Frank				
	0	.10	-				0				
	250	.06	0				0				
Ring Fringe	500	-	0				.04				
	750	-	0				.33				
	1000	.34	0				0				
	Net 0	.34	0				0				
	Collection	23	29								
		A1-Art	Bob								
N. Sargasso Sea	0	0	0								
	250	0	0								
	500	0	0								
	750	-	.07								
	1000	0	0								
	Net 0	0	0								
N. Sargasso Sea	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
	500	0	0				.13				
	750	0	0				.13				
	1000	0	0				.18				
N. Sargasso Sea	Net 0	0	0				.18				
	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
	500	0	0				.13				
	750	0	0				.13				
N. Sargasso Sea	1000	0	0				.18				
	Net 0	0	0				.18				

Hygophum benoiti,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0	0	0	2.56	0	1.57	0	0	0		
	250	0	0	.89	0	5.20	0	0	0	0		
	500	0	0	0	0	-	-	0	0	0		
	750	-	0	-	-	-	-	0	0	0		
	1000	-	1.19	.44	.20	-	1.07	0	0	0		
	Net 0	-										
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	0	0	0	3.81	-	0	0	0	0	0	0
	250	0	0	.13	.04	0	0	0	0	0	0	0
	500	0	0	.41	0	0	0	0	0	0	1.03	0
	750	0	0	0	0	0	0	0	0	-	0	0
Ring Flank	1000	0	0	0	0	0	0	0	0	-	0	0
	Net 0	0	0	.19	5.45	3.50	0	.85	0	2.85	0	0
	Collection	22	33									
		Al	Bob									
	0	0	-									
	250	0	0									
Ring Fringe	500	0	0									
	750	-	0									
	1000	-	0									
	Net 0	0	2.00									
	Collection	23	29									
		Al-Art	Bob									
N. Sargasso Sea	0	.55	.37									
	250	0	0									
	500	0	1.25									
	750	-	0									
	1000	0	.17									
	Net 0	0										
N. Sargasso Sea	Collection	25	26									
		0	.35	0								
	250	0	.04	0								
	500	0	1.00	0								
	750	0	.06	.11								
	1000	0	.25	.40								
N. Sargasso Sea	Net 0	0										

Hygophum hygomii,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
Collection		24	36	38	39	56	57	67	68				
Slope Water	0												
		.64	0	.26	0	.14	0	0	0				
	250	0	.21	.02	.08	.71	.44	0	.70				
	500	0	.32	0	-	-	0	0	0				
	750	-	0	-	-	-	0	0	0				
	1000	-	0	-	-	-	0	0	0				
Net 0		.69	0	.03	0	.23	0	0	0				
Collection		20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
Ring Center	0	0	0	0	2.86	-	0	0	0	0	0	.04	
	250	0	0	.41	0	0	0	0	0	.03	.04	0	
	500	0	0	0	0	0	0	.35	.14	0	.71	0	
	750	0	0	0	0	0	0	0	0	-	0	0	
	1000	0	0	0	0	0	0	0	0	-	0	0	
	Net 0	0	0	0	0	0	0	0	.29	1.2	.46	.22	
Collection		22	33				64						
		Al	Bob				Frank						
Ring Flank	0	0	-				.03						
	250	0	0				0						
	500	-	0				0						
	750	-	0				0						
	1000	-	0				0						
	Net 0	0	0				0						
Collection		23	29										
		Al-Art	Bob										
Ring Fringe	0	.02	.21										
	250	0	0										
	500	0	0										
	750	0	0										
	1000	-	0										
	Net 0	0	.08										
Collection		25	26				63						
			.09	0				0					
N. Sargasso Sea	250	0	0				0						
	500	0	0				0						
	750	0	0				0						
	1000	0	0				0						
	Net 0	0	0				0						

Lampanyctus alatus,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	<u>.05</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>.27</u>	
	250		<u>0</u>	0	<u>0</u>	0	.41	<u>0</u>	0	<u>.76</u>	
	500		<u>0</u>	3.60	<u>0</u>	-	-	<u>0</u>	2.96	<u>0</u>	
	750		<u>0</u>	0	-	-	-	<u>0</u>	0	<u>0</u>	
	1000		<u>0</u>	0	0	0	.17	<u>1.08</u>	.31	<u>0</u>	
	Net 0		<u>0</u>	0	<u>0</u>	0					
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0		0	0	<u>0</u>	-	<u>0</u>	0	0	<u>0</u>	0
	250		<u>0</u>	0	<u>0</u>	0	<u>0</u>	0	0	<u>.63</u>	0
	500		<u>0</u>	0	<u>0</u>	0	<u>.23</u>	0	1.21	<u>.42</u>	.09
	750		<u>0</u>	0	<u>0</u>	0	<u>.44</u>	.50	.13	-	1.05
Ring Flank	1000		<u>.06</u>	0	<u>0</u>	0	<u>.44</u>	.50	.13	-	1.05
	Net 0		<u>0</u>	0	<u>0</u>	0	<u>.18</u>	.24	.07	<u>1.05</u>	.46
	Collection	22	33				64				
		Al	Bob				Frank				
	0		0	-			<u>0</u>				
	250		<u>0</u>	<u>.55</u>			<u>0</u>				
Ring Fringe	500		<u>0</u>	<u>0</u>			<u>0</u>				
	750		<u>0</u>	<u>0</u>			<u>.33</u>				
	1000		<u>0</u>	<u>.08</u>			<u>0</u>				
	Net 0		<u>0</u>	<u>.08</u>			<u>0</u>				
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0		0	<u>.05</u>							
	250		<u>0</u>	<u>0</u>							
	500		<u>0</u>	<u>0</u>							
	750		<u>0</u>	<u>0</u>							
	1000		<u>0</u>	<u>.25</u>							
	Net 0		<u>0</u>	<u>.25</u>							
N. Sargasso Sea	Collection	25	26				63				
	0		<u>.26</u>	0			<u>0</u>				
	250		<u>.04</u>	0			<u>0</u>				
	500		<u>0</u>	0			<u>0</u>				
	750		<u>0</u>	.84			<u>.22</u>				
	1000		<u>.06</u>	.10			<u>0</u>				

Lampanyctus crocodilus,

ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	.13	0	.18	0	0	0	0	0			
	250	0	0	.19	0	0	0	.44	0	.48			
	500	0	0	0	-	-	0	0	.04	.10			
	750	-	0	-	-	-	0	0	0	0			
	1000	0	0	.12	.53	0	.58	.71	.54	0			
	Net 0	0	0	.12	.53	0	.58	.71	.54	0			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	Frank
	250	0	0	0	0	-	0	0	0	0	0	0	.04
	500	2.25	0	0	0	0	0	0	0	.06	0	0	0
	750	0	.34	0	1.09	.19	.77	0	0	.08	0	.04	0
	1000	0	1.11	0	0	0	0	0	0	-	0	0	0
Ring Flank	Depth	Collection	22	33									
	0	Al	Bob										
	250	0	-										
	500	0	0										
	750	-	0										
	1000	0	0										
Ring Fringe	Depth	Collection	23	29									
	0	Al-Art	Bob										
	250	.95	1.58										
	500	.26	.95										
	750	0	0										
	1000	-	0										
N. Sargasso Sea	Depth	Collection	25	26									
	0	0	.17	0									
	250	0	0										
	500	0	.73										
	750	0	.74										
	1000	0	0										
Net 0	0	0											

Lampanyctus cuprarius,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71								
		Collection	24	36	38	39	56	57	67	68				
Slope Water	Depth	0	.28	0	0	0	0	0	0	.03				
	250	0	0	0	0	0	.06	0	0	0				
	500	0	0	.28	0	-	-	0	.04	0				
	750	-	0	-	-	-	-	0	0	0				
	1000	0	0	0	0	.01	0	0	0	0				
	Net 0	0	0	0	0	0	0	0	0	0				
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66	
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	Frank	
	250	.04	0	0	0	-	0	0	0	.09	0	.42		
	500	0	0	0	0	0	.07	0	0	.03	0	0		
	750	0	0	0	0	0	.08	.12	.43	.04	.17	.04		
	1000	0	0	0	0	0	.19	0	0	-	0	0		
Ring Flank	Depth	Net 0	.09	0	0	0	0	.05	.07	0	.50	0	.30	
	Collection	22	33											
	0	Al	Bob	64 Frank										
	250	.14	-	.06										
	500	0	0	0										
	750	-	0	0										
Ring Fringe	Depth	1000	0	0	.06									
	Net 0	.34	.33	.65										
	Collection	23	29											
	0	Al-Art	Bob											
	250	1.25	.26											
	500	0	0											
N. Sargasso Sea	Depth	750	0	0										
	1000	-	0											
	Net 0	.11	0											
	Collection	25	26											
	0	0	0	63										
	250	0	0	.04										
	Depth	500	0	0	0									
	750	0	0	0										
	1000	0	.26	.04										
	Net 0	0	0	.05										

Lampanyctus photonotus,
ml/10,000 m³

Lampanyctus photonotus,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68		
Slope Water	Depth	0	0	0	.03	0	.11	.04	0	.33		
	250	0	0	0	0	0	.18	0	0	0		
	500	0	.04	0	-	-	-	0	0	0		
	750	-	0	-	-	-	-	0	0	0		
	1000	0	0	0	0	0	.02	0	0	0		
	Net 0	0	0	0	0	0	.02	0	0	0		
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66
		A1	A1	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	0	.04	0	0	0	-	0	0	0	1.82	0	.88
	250	.17	0	.11	0	0	0	0	.67	.03	.19	0
	500	0	0	0	0	0	1.15	1.24	.29	0	1.71	0
	750	0	0	0	0	0	1.06	.83	0	-	0	0
Ring Flank	1000	0	0	0	0	0	1.06	.83	0	-	0	0
	Net 0	.52	.27	0	0	.17	.09	.29	.18	1.95	.43	.22
	Collection	22	33				64					
		A1	Bob				Frank					
	0	1.03	-				.11					
	250	0	.33				0					
Ring Fringe	Depth	500	-	0				0				
	750	-	0				0					
	1000	.14	.25				.17					
	Net 0											
	Collection	23	29									
		A1-Art	Bob									
N. Sargasso Sea	0	.88	.21									
	250	0	0									
	500	.09	0									
	750	-	.07									
	1000	.05	.50									
	Net 0											
N. Sargasso Sea	Collection	25	26				63					
	0	.04	0				.44					
	250	0	0				0					
	500	0	.07				0					
	750	.06	0				.13					
	1000	0	0				.14					
N. Sargasso Sea	Net 0											
	Collection	25	26				63					
	0	.04	0				.44					
	250	0	0				0					
	500	0	.07				0					
	750	.06	0				.13					
N. Sargasso Sea	1000	0	0				.14					
	Net 0											

Lampanyctus pusillus,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65			Oct-Nov 77 KNORR 71						
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	0	0	0	0	0	0	0	0			
	250	0	0	0	0	0	0	0	0	0			
	500	0	0	0	-	-	-	0	0	0			
	750	-	0	-	-	-	-	0	0	0			
	1000	0	0	0	0	0	0	0	0	0			
	Net 0	0	0	0	0	0	0	0	0	0			
		Collection	20	35	27	28	32	58	59	61	62	65	66
			Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Center	Depth	0	.08	0	0	0	-	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	.04	0
	500	0	0	0	0	0	0	0	.06	.21	0	0	0
	750	0	0	0	0	0	0	0	0	0	-	0	0
	1000	0	0	0	0	0	0	0	0	0	-	0	0
	Net 0	0	0	0	0	0	0	.14	.10	0	0	0	.05
		Collection	22	33									
			Al	Bob									
Ring Flank	Depth	0	.14	-									
	250	0	0	0									
	500	-	0	0									
	750	-	0	0									
	1000	0	0	0									
	Net 0	0	0	0									
		Collection	23	29									
			Al-Art	Bob									
Ring Fringe	Depth	0	.10	0									
	250	0	0	0									
	500	0	0	0									
	750	-	0	0									
	1000	0	0	0									
	Net 0	.16	.42	0									
		Collection	25	26									
N. Sargasso Sea	Depth	0	0	0									
	250	0	0	0									
	500	0	0	0									
	750	0	.53	0									
	1000	0	0	0									
	Net 0	0	0	0									
		Collection	63										
		0	.04										
		250	0										
		500	0										
		750	0										
		1000	.09										
		Net 0	0										
		<u>Lepidophanes gaussi,</u> ml/10,000 m ³											

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0											
			.08	0	.05	0	.06	.04	0	.03			
	250		0	.71	0	.52	2.12	0	0	0			
	500		0	.08	0	-	-	0	0	0			
	750		-	0	-	-	-	0	0	0			
	1000		-	0	-	-	-	0	0	0			
Net 0			.56	.15	0	0	.93	0	.04	0			
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65	66	
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
	0												
			.36	0	0	.14	0	0	0	.77	0	1.54	
	250		0	0	.07	0	0	0	.11	0	0	0	
	500		0	0	0	0	0	0	2.14	0	1.69	0	
Ring Flank	Depth	0											
			0	0	0	0	0	0	0	-	0	0	
	250		0	0	0	0	0	0	0	-	0	0	
	500		0	0	0	0	0	0	0	-	0	0	
	750		0	0	0	0	0	0	0	-	0	0	
	1000		0	0	0	0	0	0	1.89	0	.89	0	
Net 0			.09	0	0	0	0	0	1.89	0	.89	0	
Ring Fringe	Collection	22	33				64						
		Al	Bob				Frank						
	0												
			0				.06						
	250		0				0						
	500		0				0						
N. Sargasso Sea	Depth	0											
			0				0						
	250		0				0						
	500		0				0						
	750		0				0						
	1000		0				0						
Net 0			0				0						

Lepidophanes guentheri,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	<u>24</u>	36	<u>38</u>	39	56	<u>57</u>	67	<u>68</u>			
Slope Water	Depth	0	<u>4.36</u>	0	<u>.31</u>	0	1.29	<u>2.39</u>	5.50	<u>1.17</u>			
	250		<u>0</u>	0	<u>0</u>	.08	0	<u>1.20</u>	0	<u>0</u>			
	500		<u>0</u>	0	<u>0</u>	-	-	<u>.27</u>	0	<u>0</u>			
	750		-	0	-	-	-	<u>0</u>	0	<u>0</u>			
	1000												
	Net 0		<u>7.81</u>	0	<u>0</u>	.05	0	<u>.54</u>	.77	<u>3.26</u>			
		Collection	<u>20</u>	35	27	<u>28</u>	<u>32</u>	<u>58</u>	59	61	<u>62</u>	65	<u>66</u>
			<u>Al</u>	<u>Al</u>	<u>Bob</u>	<u>Bob</u>	<u>Bob</u>	<u>Em</u>	<u>Em</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>	<u>Frank</u>
Ring Center	Depth	0	<u>.16</u>	0	0	<u>0</u>	-	.44	0	0	<u>.64</u>	0	<u>.15</u>
	250		<u>0</u>	.03	0	<u>0</u>	<u>0</u>	<u>0</u>	1.11	.44	<u>0</u>	.74	<u>0</u>
	500		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	<u>0</u>
	750		<u>0</u>	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0	0	-	0	<u>0</u>
	1000												
	Net 0		<u>.09</u>	.14	0	<u>0</u>	<u>.06</u>	<u>.27</u>	.10	1.00	<u>.25</u>	.11	<u>.27</u>
		Collection	<u>22</u>	<u>33</u>			<u>64</u>						
			<u>Al</u>	<u>Bob</u>			<u>Frank</u>						
Ring Flank	Depth	0	<u>0</u>	-			<u>.38</u>						
	250		<u>0</u>	<u>0</u>			<u>0</u>						
	500		-	<u>0</u>			<u>0</u>						
	750		-	<u>0</u>			<u>0</u>						
	1000		<u>0</u>	<u>.08</u>									
	Net 0		<u>0</u>	<u>.08</u>			.35						
		Collection	<u>23</u>	<u>29</u>									
			<u>Al-Art</u>	<u>Bob</u>									
Ring Fringe	Depth	0	<u>0</u>	<u>.32</u>									
	250		<u>0</u>	<u>0</u>									
	500		<u>0</u>	<u>.08</u>									
	750		-	<u>0</u>									
	1000												
	Net 0		<u>0</u>	<u>.08</u>									
		Collection			<u>25</u>	26	<u>63</u>						
N. Sargasso Sea	Depth	0			<u>.17</u>	0	<u>0</u>						
	250				<u>0</u>	.06	<u>0</u>						
	500				<u>0</u>	0	<u>0</u>						
	750				<u>0</u>	0	<u>0</u>						
	1000				<u>0</u>	0	<u>0</u>						
	Net 0				<u>0</u>	0	<u>0</u>						

Lobianchia dofleini,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	.03	0	0	0	.43	0	0	.67	
	250		0	.25	0	.20	0	0	.33	0	
	500		0	0	.02	-	-	0	0	0	
	750		-	.04	-	-	-	0	0	0	
	1000		0	.08	.12	.03	.43	.33	0	0	
	Net 0		0								
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	.05	-	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0
	500	0	.07	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0
Ring Flank	1000	0	0	0	0	0	0	0	.18	0	0
	Net 0	0	0	0	0	0	0	0			
	Collection	22	33				64				
		Al	Bob				Frank				
	0	0	-				0				
	250	0	0				0				
Ring Fringe	500	0	0				0				
	750	-	0				0				
	1000	-	0				0				
	Net 0	0	.08				.04				
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0	0	.11								
	250	0	0								
	500	0	0								
	750	-	0								
	1000	0	0								
	Net 0	0	0								
N. Sargasso Sea	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
N. Sargasso Sea	Net 0	0	0				0				
	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
N. Sargasso Sea	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
	500	0	0				0				
N. Sargasso Sea	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
N. Sargasso Sea	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
	0	0	0				0				
N. Sargasso Sea	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				
	Collection	25	26				63				
N. Sargasso Sea	0	0	0				0				
	250	0	0				0				
	500	0	0				0				
	750	0	0				0				
	1000	0	0				0				
	Net 0	0	0				0				

Myctophum affine,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	.08	0	.03	0	.03	.04	.05	.03			
	250		.03	.14	.02	.04	0	0	0	0			
	500		0	0	0	-	-	0	0	0			
	750		-	0	-	-	-	0	0	0			
	1000												
	Net 0		.12	0	0	0	0	0	0	0			
		Collection	20	35	27	28	32	58	59	61	62	65	66
			Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Center	Depth	0	0	0	0	.05	-	0	0	.08	0	0	.12
	250		.08	.03	.07	0	0	.07	.06	.33	.03	.15	0
	500		0	.03	.04	0	0	0	0	0	0	0	0
	750		0	0	0	0	0	0	0	0	-	0	0
	1000		0	0	0	.09	0	0	0	0	.05	0	0
	Net 0		-	-	-	-	-	-	-	-	-	-	-
		Collection	22	33									
			Al	Bob									
Ring Flank	Depth	0											
	250		.07	-									
	500		0	.11									
	750		-	0									
	1000		-	0									
	Net 0		.09	.08									
		Collection	23	29									
			Al-Art	Bob									
Ring Fringe	Depth	0											
	250		.12	.53									
	500		0	.05									
	750		0	0									
	1000		-	0									
	Net 0		0	.08									
		Collection											
			25	26									
N. Sargasso Sea	Depth	0											
	250		.09	0									
	500		.04	.59									
	750		0	0									
	1000		0	0									
	Net 0		0	.05									

Notolychnus valdiviac,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
Slope Water	Depth	Collection	24	36	38	39	56	57	67	68			
		0	0	0	.97	0	0	3.48	0	.80			
		250	0	0	0	0	2.71	0	0	0			
		500	0	0	0	-	-	0	.70	0			
		750	-	.29	-	-	-	0	1.80	0			
		1000	0	.04	0	.05	1.50	.58	0	.47			
Net 0	0												
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
			Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
		0	0	0	0	.43	-	0	0	0	0	0	0
		250	0	0	0	0	0	0	0	0	0	0	0
		500	0	0	0	0	0	0	0	0	0	0	0
		750	0	.15	0	0	0	0	0	.70	-	0	0
1000	0	0	0	0	0	0	0	0	0	.70	0	0	
Net 0	0												
Ring Flank	Depth	Collection	22	33									
			Al	Bob									
		0	0	-									
		250	0	0									
		500	0	0									
		750	0	0									
1000	0	0											
Net 0	0	.08											
Ring Fringe	Depth	Collection	23	29									
			Al-Art	Bob									
		0	0	0									
		250	0	0									
		500	0	0									
		750	0	.08									
1000	0	0											
Net 0	0	.25											
N. Sargasso Sea	Depth	Collection	25	26									
		0	0	0									
		250	0	0									
		500	0	0									
		750	.05	0									
		1000	0	1.32									
Net 0	0	.25											

<u>Notoscopelus resplendens.</u>											
ml/10,000 m ³											

Notoscopelus resplendens,
m1/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0	0	.04	.43	0	0	0	0	0			
	250	0	0	0	0	0	0	0	0	.03			
	500	0	0	0	-	-	-	0	0	0			
	750	-	0	-	-	-	-	0	0	0			
	1000	0	0	0	0	0	0	0	0	0			
	Net 0	0	0	0	0	0	0	0	0	0			
Ring Center	Depth	Collection	20	35	27	28	32	58	59	61	62	65	66
	0	Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	Frank
	250	0	0	0	0	-	0	0	0	.05	.75	.58	
	500	2.50	.20	0	0	2.14	0	.56	6.11	0	3.33	0	
	750	0	0	0	0	0	0	0	0	0	0	0	
	1000	0	0	0	0	0	0	0	0	-	0	0	
Ring Flank	Net 0	.04	.68	0	0	0	.41	.02	1.79	.10	0	0	
	Collection	22	33					64					
	0	Al	Bob					Frank					
	250	0	0					0					
	500	1.03	1.11					.04					
	750	-	0					0					
Ring Fringe	1000	-	0					0					
	Net 0	.02	2.08					0					
	Collection	23	29										
	0	Al-Art	Bob										
	250	.25	0										
	500	0	.21										
N. Sargasso Sea	750	0	0										
	1000	-	0										
	Net 0	0	11.08										
	Collection	25	26					63					
	0	0	0					0					
	250	.43	0					.04					
N. Sargasso Sea	500	0	0					0					
	750	0	0					0					
	1000	0	0					0					
	Net 0	.06	0					.32					

Argyropelecus aculeatus,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	0	.08	.04	0	0	0	0	
	250	0	0	0	.05	0	0	0	.04	.03	
	500	0	0	0	0	-	-	0	0	0	
	750	-	0	-	-	-	-	0	0	0	
	1000	0	0	0	0	0	.08	.17	.15	.30	
	Net 0	0	0	0	0	0					
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		AI	AI	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	.07	0	0	-	.06	0	0	0	0
	250	0	.43	0	0	0	.13	0	.06	.22	.07
	500	.61	0	0	0	0	.15	1.47	0	0	0
	750	0	0	0	0	0	0	0	0	-	0
Ring Flank	1000	0	0	0	0	0	0	0	0	0	0
	Net 0	.13	1.00	0	.45	0	.27	.39	.04	.05	0
	Collection	22	33				64				
		AI	Bob				Frank				
	0	0	0				.03				
	250	0	0				.83				
Ring Fringe	500	1.35	0				.33				
	750	-	0				0				
	1000	-	0				.13				
	Net 0	.23	0								
	Collection	23	29								
		AI-Art	Bob								
N. Sargasso Sea	0	.03	0								
	250	.13	.05								
	500	.17	.58								
	750	-	0								
	1000	.05	.83								
	Net 0										
N. Sargasso Sea	Collection	25	26				63				
	0	0	0				0				
	250	.79	.18				.38				
	500	0	0				.48				
	750	0	0				0				
	1000	.38	0				.23				

Argyropolecus hemigymnus,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71					
		Collection	24	36	38	39	56	57	67	68	
Slope Water	Depth	0	0	.07	0	0	0	.78	0	0	
	250	0	0	0	0	0	0	.12	0	0	
	500	1.91	.96	2.33	-	-	-	1.36	.33	1.61	
	750	-	1.07	-	-	-	-	1.14	.72	0	
	1000	.94	1.92	0	.97	.47	.63	0	0		
	Net 0										
Ring Center	Collection	20	35	27	28	32	58	59	61	62	65
		Al	Al	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank
	0	0	0	0	0	-	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0
	500	0	.48	.38	1.78	.06	.08	0	0	0	.08
	750	0	.56	0	0	0	.38	.83	.13	-	0
Ring Flank	1000	.04	.05	0	.64	.61	.86	.02	0	.25	0
	Net 0										
	Collection	22	33				64				
		Al	Bob				Frank				
	0	0	0				0				
	250	0	0				0				
Ring Fringe	500	-	.13				.37				
	750	-	0				1.22				
	1000	.45	.33				.87				
	Net 0										
	Collection	23	29								
		Al-Art	Bob								
N. Sargasso Sea	0	0	0								
	250	0	0								
	500	0	0								
	750	-	1.29								
	1000	0	2.17								
	Net 0										
N. Sargasso Sea	Collection	25	26				63				
	0	0	0				0				
	250	0	0				0				
	500	0	0				.04				
	750	1.19	.42				.30				
	1000	.56	1.25				1.82				
	Net 0										

Sternoptyx diaphana,
ml/10,000 m³

		Nov-Dec 76 KNORR 62		April 77 KNORR 65		Oct-Nov 77 KNORR 71							
		Collection	24	36	38	39	56	57	67	68			
Slope Water	Depth	0											
			14.36	0	0	0	0	0	0	0			
	250		0	0	1.63	0	0	0	0	0			
	500		0	0	0	-	-	0	0	5.16			
	750		-	0	-	-	-	0	0	0			
	1000		-	0	-	-	-	0	0	0			
		Net 0	9.38	30.96	.88	11.89	1.50	9.17	0	0			
		Collection	20	35	27	28	32	58	59	61	62	65	66
			A1	A1	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Center	Depth	0											
			.02	0	0	0	-	0	0	0	.15	0	.08
	250		0	0	5.22	0	35.29	0	0	0	9.38	.07	12.22
	500		-	1.72	35.08	0	0	0	12.35	39.29	0	7.14	0
	750		0	0	0	0	0	0	16.67	0	-	0	0
	1000		0	0	0	0	0	0	0	0	-	0	0
		Net 0	3.04	0	.38	26.00	27.00	13.64	0	0	.20	0	4.05
		Collection	22	33									
			A1	Bob									
Ring Flank	Depth	0											
			.10	0									
	250		0	0									
	500		-	0									
	750		-	0									
	1000		-	0									
		Net 0	2.27	1.58									
		Collection	23	29									
			A1-Art	Bob									
Ring Fringe	Depth	0											
			.13	5.53									
	250		0	0									
	500		0	0									
	750		-	0									
	1000		-	0									
		Net 0	.11	0									
		Collection	25	26									
N. Sargasso Sea	Depth	0											
			0	0									
	250		0	0									
	500		0	0									
	750		0	0									
	1000		0	0									
		Net 0	0	.30									

Gonostoma elongatum,
ml/10,000 m³

SPECIES

NUMBER OF SPECIMENS BY STATION, ALL CRUISES

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	113	32 30 63	107 101	451 128 80 175	
Ring Center	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 Dave Bob Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank	
Ring Flank	8	1 49 221 (98)	0 140 65 41 46 80	8 6 145 90 113 180	
Ring Fringe	Collection 22 Al	33 30 Bob Bob	51 51 Bob Bob	64 64 Frank Frank	
	4	(21)	6	4	
Sargasso Sea	Collection 23 Al-Art	29 30 Bob Bob	46 46 Bob Bob		
	0	0 0	0		
	Collection	25 26	43 44 45 52	63	
		0 0	0 0 0 0	0	

Benthosema glaciale,
number

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	4	2 1 1	1 1	3 11 2 1	
Ring Center	Collection 20 Al	35 27 28 Al Bob Bob	40 42 Dave Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank	
	8	8 1 3	7 5 (0)	3 21 5 17 17 2	
Ring Flank	Collection 22 Al	33 Bob	51 Bob	64 Frank	
	55	(1)	16	4	
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 Bob		
	41	12 5	8		
Sargasso Sea	Collection	25 26	43 44 45 52	63	Bolinichthys indicus, number
		0 10	15 2 15 4	11	

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection <u>24</u>	36 <u>38</u> 39	53 <u>54</u>	56 <u>57</u> 67 <u>68</u>	
	<u>27</u>	0 2 <u>0</u>	6 <u>71</u>	19 <u>20</u> 147 <u>89</u>	
Ring Center	Collection <u>20</u> Al	35 27 <u>28</u> Al Bob Bob	40 42 <u>47</u> Dave Bob Bob	58 59 <u>61</u> Em Em Frank	62 65 <u>66</u> Frank Frank Frank
Ring Flank	<u>15</u>	0 0 <u>0</u>	0 54 <u>22</u>	0 0 <u>180</u>	564 <u>174</u>
		(0)			
Ring Fringe	Collection <u>22</u> Al	33 <u>31</u> Bob Bob	51 <u>51</u> Bob Bob	64 <u>30</u> Frank	
	<u>12</u>	(0)	2 <u>2</u>		
Sargasso Sea	Collection <u>23</u> Al-Art	29 30 <u>Bob</u>	46 <u>43</u> Bob	2 <u>44</u>	
	<u>10</u>	0 0 <u>0</u>	2 <u>45</u>		
	Collection	25 <u>26</u>	43 <u>44</u> 45 <u>52</u>	63 <u>87</u>	
		0 0	2 0 0 0		

Ceratoscopelus maderensis,
number

	Nov-Dec 76		April 77		July-Aug 77		Oct-Nov 77	
	KNORR 62		KNORR 65		ENDEAVOR 11		KNORR 71	
Slope Water	Collection							
	24		36	38 39	53 54		56 57 67 68	
	2		3	6 1	7 4		1 5 3 4	
Ring Center	Collection		35	27 28	40 42	49	58 59 61 62 65 66	
	20		AI	Bob Bob	Dave Bob Bob	Bob Bob	Em Frank Frank Frank Frank	
	5		0	1 2	0 4	2	17 13 9 8 5 9	
Ring Flank	Collection		33		51		64	
	22		Bob		Bob		Frank	
	41		(0)		20		17	
Ring Fringe	Collection		29	30	46			
	23		Bob	Bob	Bob			
	105		29	16	15			
Sargasso Sea	Collection		25	26	43 44 45 52		63	
			0	1	40 28 25 10		25	

Ceratoscopelus warmingii,
number

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
Collection		Collection		Collection		Collection	
24	53	38	39	54	56	57	68
6	0	7	10	1	0	0	0
Slope Water		Slope Water		Slope Water		Slope Water	
Collection		Collection		Collection		Collection	
20	40	27	28	42	48	49	50
AI	Dave	Bob	Bob	Bob	Bob	Bob	Bob
0	0	0	1	0	0	0	0
Ring Center		Ring Center		Ring Center		Ring Center	
Collection		Collection		Collection		Collection	
22	51	33	32	40	58	59	61
AI	Bob	Bob	Bob	Dave	Em	Em	Frank
0	0	0	(0)	0	0	0	0
Ring Flank		Ring Flank		Ring Flank		Ring Flank	
Collection		Collection		Collection		Collection	
23	64	29	30	46	62	63	66
AI-Art	Frank	Bob	Bob	Bob	Frank	Frank	Frank
1	0	2	0	0	0	0	0
Ring Fringe		Ring Fringe		Ring Fringe		Ring Fringe	
Collection		Collection		Collection		Collection	
25	43	25	26	44	52	53	54
0	0	0	0	0	0	0	0
Sargasso Sea		Sargasso Sea		Sargasso Sea		Sargasso Sea	
Collection		Collection		Collection		Collection	
26	63	27	28	45	55	56	57
0	0	0	0	0	0	0	0
Diaphus dumerilii,		Diaphus dumerilii,		Diaphus dumerilii,		Diaphus dumerilii,	
number		number		number		number	
63		63		63		63	
0		0		0		0	

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68
	0	0 0 0	0 1	0 0 0 0
Ring Center	Collection 20 Al	35 27 28 Al Bob Bob	40 42 47 48 49 Dave Bob Bob Bob Bob	58 59 61 62 65 66 Em Em Frank Frank Frank Frank
Ring Flank	Collection 22 Al	33 27 28 Bob Al Bob Bob	51 54 55 56 57 58 Bob Bob Bob Bob Bob Bob	64 65 66 67 68 69 Frank Frank Frank Frank Frank Frank
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 47 48 49 50 Bob Bob Bob Bob Bob	59 60 61 62 63 64 Em Em Frank Frank Frank Frank
Sargasso Sea	Collection 25	26 27 28 Bob Bob Bob	51 52 53 54 55 56 Bob Bob Bob Bob Bob Bob	64 65 66 67 68 69 Frank Frank Frank Frank Frank Frank

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71				
Collection		36	38	39	53	54	56	57	67	68
24										
Slope Water		0	0	2	0	0	0	1	0	0
Collection		35	27	28	40	42	48	49	50	58
20										
AI		AI	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Em
Ring Center		0	0	1	5	1	1	0	5	4
1				(0)						
Collection		33	30	32	51	54	64	61	62	65
22										
AI		Bob	Bob	Bob	Bob	Bob	Frank	Em	Frank	Frank
Ring Flank		(0)			15		2	2	1	0
7										5
Collection		29	30	46	43	44	45	52	63	
23										
AI-Art		Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
Ring Fringe		5	0	0	4	1	0	1	0	
5										
Collection		25	26	27	43	44	45	52	63	
25										
Sargasso Sea		1	2	2	4	1	0	1	0	
1										

Diaphus mollis,
number

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71								
Slope Water	Collection 24	36	38	39	53	54	56	57	67	68					
	0	3	7	5	0	0	0	0	2	0					
Ring Center	Collection 20 Al	35 Al	27 Bob	28 Bob	40 Dave	42 Bob	48 Bob	49 Bob	50 Bob	58 Em	59 Em	61 Frank	62 Frank	65 Frank	66 Frank
	3	3	0	0	0	0	0	0	0	0	0	2	0	1	2
Ring Flank	Collection 22 Al	33 Bob			51 Bob					64 Frank					
	12	(7)			0					2					
Ring Fringe	Collection 23 Al-Art	29 Bob	30 Bob		46 Bob										
	4	0	0	0	0										
Sargasso Sea	Collection	25	26		43	44	45	52							
		2	0		0	0	0	0							

Diaphus rafinesquii,
number

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
Collection <u>24</u>		36	<u>38</u> 39	<u>53</u> 54	56 57 <u>68</u>		
Slope Water		3	<u>6</u> 1	<u>1</u> 3	2 3 <u>4</u> <u>1</u>		
Collection 20 AI		35	27 28 AI Bob Bob	40 42 Dave Bob Bob	58 <u>Em</u>	59 Em 61 62 65 66 Frank Frank Frank Frank	
Ring Center		<u>1</u>	4 0 <u>1</u>	6 1 (0)	<u>6</u> <u>1</u> <u>2</u> 0 0 <u>1</u>	5 3 0 5 0	<u>0</u>
Collection 22 AI		33	Bob	51 Bob	<u>64</u> Frank		
Ring Flank		<u>4</u>	(9)	<u>15</u>	<u>2</u>		
Collection 23 AI-Art		29	30 Bob Bob	46 Bob			
Ring Fringe		<u>7</u>	5 <u>0</u>	8			
Collection		<u>25</u>	26	43 <u>44</u> <u>45</u> <u>52</u>	<u>63</u>		
Sargasso Sea		<u>2</u>	2 2	32 <u>2</u> <u>11</u> <u>1</u>	<u>0</u>		
<u>Diogenichthys atlanticus,</u> number							

Diogenichthys atlanticus,
number

Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection 24	36 38 39	53 54	56 57 67 68
Slope Water	11 2 1	8 5	15 3 3 2
Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank Frank
Ring Center	51 2 0 2 (1)	0 5 1 2 0 4	2 15 14 10 4 24
Collection 22 Al	33 Bob	51 Bob	64 Frank
Ring Flank	16 (0)	11	8
Collection 23 Al-Art	29 30 Bob Bob	46 Bob	
Ring Fringe	0 4 2	5	
Collection	25 26	43 44 45 52	Hygophum benoiti, number
Sargasso Sea	0 0	9 1 9 2	63 5

Nov-Dec 76
KNORR 62

April 77
KNORR 65

July-Aug 77
ENDEAVOR 11

Oct-Nov 77
KNORR 71

Collection

Slope Water

53
54

00

36 38 39

24	31	56
----	----	----

24

0

Collection

Ring Center

32
Bob

28
Bob

27 Bob

35 A1

20

of

Collection

Ring Flank

51
Bob

1

33
ob

(16)

Collection

Ringfringe

46 Bob

30
Bob

29 ob

<u>Hygophum hygomi</u> ,	number
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Collection

Sargasso Sea

43

26

25

1

16

24

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
Slope Water	Collection	36	38 39	53 54	56 57 67 68		
	24						
Ring Center	9	14	9 1	0 2	7 1 0 1		
	20						
Ring Flank	Collection	35	27 28	40 42	58 59 61 62 65 66		
	Al	Al	Bob Bob	Dave Bob Bob Bob	Em Frank Frank Frank Frank Frank		
Ring Fringe	0	0	4 44 (0)	0 3 5 2 2 0	0 1 4 5 11 2		
	22						
Sargasso Sea	Collection	33	30	51 54	64 65		
	Al-Art	Bob	Bob	Bob	Frank		
Lampanyctus alatus, number	1	(0)	6 6	1 1	1		
	23						
Lampanyctus alatus, number	Collection	29	26	43 44 45 52	63		
	Al-Art	Bob	Bob	Bob			
Lampanyctus alatus, number	1	6	0	1 0 0 0	0		
	25						

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68
	1	1 0 0	8 2	8 9 10 2
Ring Center	Collection 20 Al	35 27 28 Al Bob Bob	40 42 Dave Bob Bob	58 59 61 62 65 66 Em Em Frank Frank Frank Frank
	1	0 0 0 (0)	0 12 14 16 3 8	6 9 8 18 14 6
Ring Flank	Collection 22 Al	33 27 28 Bob Al Bob Bob	51 40 42 Bob Dave Bob Bob	64 50 Frank Bob Bob Bob
	0	(2) 0 0 0 (0)	2 0 12 14 16 3 8	2 6 9 8 18 14 6
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 43 44 45 52	
	0	3 3 3	3 1 0 0 0	
Sargasso Sea	Collection	25 26	43 44 45 52	
		9 19	1 0 0 0	

Lampanyctus crocodilus,
number

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
	Collection		Collection		Collection		Collection	
Slope Water	24		36	38 39	53 54	56	57 67 68	
	3		1 0 1	1 2	1 2	1	0 1 1	1
Ring Center	20		35	27 28 32	40 42	58	59 61 62 65 66	
	AI		AI Bob Bob Bob	Dave Bob Bob Bob Bob	50	lim	lim Frank Frank Frank Frank	
	4		0 0 0 0	0 0 0 0	0 0 0 0	10	6 7 17 6 14	
Ring Flank	22		33	51	64			
	AI		Bob	Bob	Frank			
	3		(1)	3	9			
Ring Fringe	23		29	30	46			
	AI-Art		Bob Bob		Bob			
	11		1 2	1				
Sargasso Sea	Collection		25 26	43 44 45 52	63			
			0 1	0 1 0 1	3			

Lampanyctus photonotus,
number

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	54	0 3 5	2 10	13 23 32 34	
Ring Center	Collection 20 AI	35 27 28 32 AI Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob	58 59 61 62 65 66 lim Frank Frank Frank Frank	
	2	4 0 0 0 (1)	1 2 1 9 3 2	4 5 10 7 9 3	
Ring Flank	Collection 22 AI	33 33 Bob Bob	51 51 Bob Bob	64 64 Frank Frank	
	0	(2)	1	6	
Ring Fringe	Collection 23 AI-Art	29 30 Bob Bob	46 46 Bob Bob		
	0	14 0 0	4		
Sargasso Sea	Collection	25 26	43 44 45 52	63	
		2 2	2 2 0 0	0	
					<i>Lobianchia dofleini</i> , number

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection	24	36	38	39
		53	54	
Slope Water	1	0	0	
		9	2	1
Collection	20	35	27	28
	Al	Al	Bob	Bob
		32	40	42
		Bob	Dave	Bob
	0	2	0	1
		(0)	0	0
Ring Center			47	48
			Bob	Bob
			50	59
			Bob	Em
			61	62
			Frank	Frank
			65	66
			Frank	Frank
Ring Flank				
Ring Fringe				
Ring Fringe				

Myctophum affine,
number

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
	Collection		Collection		Collection		Collection	
Slope Water	24		36	38 39	53 54		56 57 67 68	
	14		6	3 2	1 3		4 1 1 2	
Ring Center	20		35	27 28 32	40 42 47 48 49 50		58 59 61 62 65 66	
	Al		Al	Bob Bob Bob Bob Bob Bob	Dave Bob Bob Bob Bob Bob Bob		Em Frank Frank Frank Frank Frank	
Ring Flank	1		3	6 4	4 3 2 1 1 2		1 1 13 5 11 10	
	22		33	Bob	51 Bob		64 Frank	
	14		(2)		17		4	
Ring Fringe	23		29	30	46 Bob			
	Al-Art		Bob	Bob				
	15		25	8	1			
Sargasso Sea	Collection		25	26	43 44 45 52		63	
			4	16	15 4 2 0		4	

Notolychmus valdiviae,
number

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71			
Slope Water	Collection 24	36	38	39	53	54	56	57	67	68
	0	4	4	3	0	0	9	6	4	2
Ring Center	Collection 20	35	27	28	40	42	49	50	59	60
	Al	Al	Bob	Bob	Dave	Bob	Bob	Bob	Em	Frank
	0	1	0	2	0	0	0	0	0	0
Ring Flank	Collection 22	33	30	31	51	52	64	65	66	67
	Al	Bob	Bob	Bob	Bob	Bob	Frank	Frank	Frank	Frank
	0	(1)	0	0	0	0	1	1	1	0
Ring Fringe	Collection 23	29	30	31	46	47	48	49	50	51
	Al-Art	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
Ring Fringe	0	3	6	0	0	0	0	0	0	0
Sargasso Sea	Collection 25	26	27	28	43	44	45	46	47	48
	1	21	0	0	0	0	0	0	0	0
Notoscopelus resplendens, number										

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71								
	Collection		Collection		Collection		Collection								
Slope Water	24	36	38	39	53	54	56	57	67	68					
	0	3	1	0	6	0	0	0	0	1					
Ring Center	20	35	27	28	40	42	48	49	50	58	59	61	62	65	66
	Al	Al	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Flank	22	33	30	31	51	52	53	54	55	56	57	58	59	60	61
	Al	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
Ring Fringe	23	29	30	31	46	47	48	49	50	51	52	53	54	55	56
	Al-Art	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
Sargasso Sea	1	12	4	4	3	4	4	4	4	4	4	4	4	4	4
	Collection	25	26	27	43	44	45	46	47	48	49	50	51	52	53
		4	0	0	1	2	1	1	1	1	1	1	1	1	1

Argyropelecus aculeatus,
number

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	0	0 4 3	0 4	2 5 2 3	
Ring Center	Collection 20 Al	35 27 28 Al Bob Bob	40 42 47 48 49 Dave Bob Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank	
Ring Flank	Collection 22 Al	27 0 2 (0)	23 4 3 2 1 3	31 55 3 5 10	
Ring Fringe	Collection 23 Al-Art	33 22 Bob Al	51 51 Bob Bob	64 64 Frank Frank	
Sargasso Sea	Collection 10	29 30 Bob Bob	46 46 Bob Bob	49 49	
		26 13	5 5		Argyropelecus hemigymnus, number
	Collection 25	25 26	43 44 45 52	63	
	15	1 1	10 11 4 8	19	

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71						
Slope Water	Collection 24	36	38	39	53	54	56	57	67	68		
	7	15	9	11	0	0	4	12	3	9		
Ring Center	Collection 20 Al	35	27	28	40	42	58	59	61	62	65	66
	1	Al	Bob	Bob	Dave	Bob	Em	Em	Frank	Frank	Frank	Frank
Ring Flank	Collection 22 Al	5	2	5	0	0	8	3	1	1	0	1
	2	Bob	Bob	(2)			Em					
Ring Fringe	Collection 23 Al-Art	33	30		51		64					
	0	Bob	Bob		Bob		Frank					
Sargasso Sea	Collection	25	26		43	44	63					
		5	7		4	3	10					
Sternoptyx diaphana, number												

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Ring Fringe	Collection 24	36 38 39	53 54	56 57 67 68	
Ring Fringe	8	2 2 8	2 1	2 3 0 1	
Ring Fringe	Collection 20 Al	35 27 28 Al Bob Bob	40 42 32 Dave Bob Bob	58 59 61 62 65 66 Em Em Frank Frank Frank Frank	
Ring Fringe	3	2 5 2 2	0 1 1 2 (2)	1 2 3 2 2 4	
Ring Flank	Collection 22 Al	33 22 Bob Al	51 50 Bob Bob	64 Frank	
Ring Flank	13	5	0	2	
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 Bob		
Ring Fringe	10	26 10	0		
Sargasso Sea	Collection	25 26	43 44 45 52	63	
		0 1	0 0 6 0	3	

Gonostoma elongatum,
number

SPECIES

NUMBER OF SPECIMENS PER UNIT VOLUME OF WATER BY STATION,
ALL CRUISES

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68
	.8	.1 .2 .1	.1 .1	.3 .6 .1 <.1
Ring Center	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank Frank
	1.0	.6 .1 .6 (0)	.7 .4 .3 0 0 .4	.2 1.1 .4 1.6 1.0 .1
Ring Flank	Collection 22 Al	33 Bob	51 Bob	64 Frank
	5.8	(.8)	1.4	.2
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 Bob	
	1.7	1.5 .6	.7	
Ring Fringe				
Sargasso Sea	Collection	25 26	43 44 45 52	63
		0 1.2	1.2 .2 1.3 .3	1.1
				</

Bolinichthys indicus,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	.4	.4 .2 <.1	.6 .3	.1 .6 .2 .3	
Ring Center	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob	58 59 61 62 65 66 Jim Frank Frank Frank Frank	
	.1	0 <.1 .5 (0)	0 .3 1.2 .8 .2 1.2	1.9 1.1 .9 .8 .5 .5	
Ring Flank	Collection 22 Al	53 22 Bob Al	51 51 Bob Bob	64 64 Frank Frank	
	3.8	(0)	1.7	1.9	
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 46 Bob Bob		
	8.9	2.9 1.8	1.4		
Sargasso Sea	Collection	25 26	43 44 45 52	63	
		0 .1	3.0 2.4 2.2 .8	2.0	
					<i>Ceratoscopelus warmingii</i> , specimens/10,000 m ³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71				
Slope Water	Collection 24		36	38	39	53	54	56	57	67	68
	1.6		.2	.4	1.0	0	0	0	0	.1	0
Ring Center	Collection 20	Al	35	27	28	40	42	49	58	61	62
			Al	Bob	Bob	Dave	Bob	Bob	Em	Frank	Frank
	0		0	0	.1	0	0	0	0	0	0
					(0)						
Ring Flank	Collection 22	Al	33			51		64			
			Bob			Bob		Frank			
	0		(0)			0		0			
Ring Fringe	Collection 23	Al-Art	29	30		46					
			Bob	Bob		Bob					
	<.1		.1	0		0					
Sargasso Sea	Collection		25	26		43	44	45	52		
			0	0		0	0	0	0		

Diaphus dumerilii,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
	Collection		Collection		Collection		Collection	
Slope Water	24		36	38	53	54	56	57
	0		0	0	0	.1	0	0
Ring Center	20		35	27	40	42	58	59
	AI		AI	Bob	Dave	Bob	Em	Em
	0		0	<.1	.1	0	0	.1
Ring Flank	22		33	30	51	50	64	61
	AI		Bob	Bob	Bob	Bob	Frank	Frank
	.1		(.8)		0		<.1	.4
Ring Fringe	23		29	30	46	42		62
	AI-Art		Bob	Bob	Bob	Bob		Frank
	.6		.9	.1	0			.1
								.2
Sargasso Sea	25		43	44	45	52	63	
	Collection		0	0	0	0	0	

Diaphus effulgens,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Slope Water	Collection <u>24</u>	36 <u>38</u> 39	53 <u>54</u>	56 <u>57</u> 67 <u>68</u>
	.9	.1 .2 .1	.1 .2	<.1 .2 .2 <.1
Ring Center	Collection 20 <u>Al</u>	35 27 <u>Bob</u> 28 <u>Bob</u> 32 <u>Bob</u>	40 Dave <u>Bob</u> 42 <u>Bob</u> 47 <u>Bob</u> 48 <u>Bob</u> 49 <u>Bob</u> 50 <u>Bob</u>	58 <u>Em</u> 59 Em Frank Frank Frank Frank <u>Frank</u> 66 <u>Frank</u>
	.1	.4 0 .1 <u>(0)</u>	.6 .1 .2 0 0 .1	.6 .4 .2 0 .3 0
Ring Flank	Collection 22 <u>Al</u>	33 <u>Bob</u>	51 <u>Bob</u>	64 <u>Frank</u>
	.5	(0)	1.3	.1
Ring Fringe	Collection 23 <u>Al-Art</u>	29 <u>Bob</u> 30 <u>Bob</u>	46 <u>Bob</u>	
	.3	1.0 0	.7	
Sargasso Sea	Collection	25 26	43 <u>44</u> <u>45</u> 52	63
		.1 .3	2.4 .2 <u>1.0</u> .1	0

Diogenichthys atlanticus,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	.1	.5 .1 .1	.7 .4	1.1 .2 .3 .1	
Ring Center	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob Bob	58 59 61 62 65 66 Jim Em Frank Frank Frank Frank	
	6.9	.1 0 .9 (0)	0 .4 .1 .2 0 .3	.2 1.3 1.9 .7 .3 1.9	
Ring Flank	Collection 22 Al	33 Bob	51 Bob	64 Frank	
	1.3	(0)	.9	.5	
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 Bob		
	0	.4 .2	.5		
Sargasso Sea	Collection	25 26	43 44 45 52	63	
		0 0	.7 .1 .8 .2	.6	
					Hygophum benoiti, specimens/10,000 m ³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71											
Slope Water	Collection 24		36	38	39	53	54	56	57	67	68							
	0		2.4	2.2	5.2	0	0	.7	0	0	0							
Ring Center	Collection 20		35	27	28	32	40	42	47	48	49	50	58	59	61	62	65	66
	Al		Al	Bob	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Bob	Em	Frank	Frank	Frank	Frank	Frank
	0		.4	.6	20.5	(14.4)	0	.2	0	0	.1	0	0	.2	0	.8	.1	0
Ring Flank	Collection 22		33				51						64					
	Al		Bob				Bob						Frank					
	0		(13.3)				.1						0					
Ring Fringe	Collection 23		29	30			46											
	Al-Art		Bob	Bob			Bob											
	<.1		6.4	3.2			0											
Ring	Collection		25	26			43	44	45	52			63					
Sargasso Sea			2.3	2.3			.1	0	.2	0			0					
				</														

Hygophum hygomi,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Slope Water	Collection			
	24	36 38 39	53 54	56 57 67 68
Ring Center	1.4	.7 .5 .1	0 .2	.6 .1 0 <.1
	Collection			
Ring Flank	20	35 27 28 32	40 42 47 48 49 50	58 59 61 62 65 66
	Al	Al Bob Bob Bob Bob Bob	Dave Bob Bob Bob Bob Bob	Em Em Frank Frank Frank Frank
Ring Fringe	0	0 .2 2.6 (0)	0 .2 .4 .2 0	0 .1 .5 1.0 .7 .2
	Collection			
Sargasso Sea	22	33 30	51 46	64
	Al	Bob Bob Bob Bob	Bob Bob Bob Bob	Frank
Sargasso Sea	0	(0)	.1	<.1
	Collection			
Sargasso Sea	23	29 30	43 44 45 52	63
	Al-Art	Bob Bob Bob Bob	Bob Bob Bob Bob	Bob
Sargasso Sea	<.1	.7 .7 .2	.1 0 0 0 0	0
	Collection			

Lampanyctus alatus,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Collection					
24	36	38	53	54	56
Slope Water	.1	0	.7	.2	.7
					1.9
					.6
					.1
Collection					
20	35	27	40	42	58
AI	AI	Bob	Dave	Bob	Em
Ring Center	.1	0	0	.9	.8
			(0)		.8
					2.6
					1.3
					.8
Collection					
22	33		51		64
AI	Bob		Bob		Frank
Ring Flank	0	(.8)	2		.1
Collection					
23	29	30	46		
AI-Art	Bob	Bob	Bob		
Ring Fringe	0	.9	.3		
Collection					
25	25	26	43	44	63
Sargasso Sea	.7	2.0	.1	0	.1

Lampanyctus crocodilus,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71									
Slope Water	Collection															
	24		36	38	39	53	54	56	57	67	68					
	.4		.2	.4	0	0	.1	.2	.5	.2	.3					
Ring Center	Collection															
	20		35	27	28	40	42	48	49	50	58	59	61	62	65	66
	Al		Al	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank
	.1		.2	0	<.1	0	0	0	0	0	.1	.1	0	.4	0	.7
Ring Flank	Collection															
	22		33	Bob		51	Bob				64	Frank				
	0		(0)			0					.4					
Ring Fringe	Collection															
	23		29	30	Bob	46	Bob									
	Al-Art		Bob	Bob		Bob										
	.7		2.8	.3		.1										
Sargasso Sea	Collection															
	25		25	26		43	44	45	52		63					
	<.1		<.1	.3		.1	.1	.3	0		1.6					

Lampanyctus cuprarius,
specimens/10,000 m³

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71				
Collection 24		36	38	39	53	54	56	57	67	68
.2		<.1	0	<.1	.1	.2	<.1	0	.1	<.1
Slope Water										
Collection 20		35	27	28	40	42	47	48	49	50
Al		Al	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Bob
.5		0	0	0	0	0	0	0	0	0
Ring Center										
Collection 22		33	29	30	51	46	58	59	61	62
Al		Bob	Bob	Bob	Bob	Bob	Em	Em	Frank	Frank
.3		(.8)			.3		1.0	.6	.6	3.0
Ring Flank							1.5			.2
Collection 23		29	30		46		64			65
Al-Art		Bob	Bob		Bob		Frank			Frank
.4		.1	.2		.1					66
Ring Fringe										Frank
Collection		25	26	52	43	44	45	63		
Sargasso Sea		0	.1	.1	0	.1	0	.4		
Collection										
Sargasso Sea										

Lampanyctus photonotus,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71									
	Collection		Collection		Collection		Collection									
Slope Water	24	36	38	39	53	54	56	57	67	68						
	0	<.1	<.1	0	.2	.8	.4	.1	0	.2						
Ring Center	Collection	35	27	28	40	42	48	49	50	58	59	61	62	65	66	
	20	Al	Al	Bob	Dave	Bob	Bob	Bob	Bob	Em	Em	Frank	Frank	Frank	Frank	
Ring Flank	1.8	.4	<.1	0	.1	1.8	0	.3	.1	2.0	2.0	3.5	1.2	7.7	2.4	1.1
	22	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
Ring Fringe	2.1	33	51	51	51	51	51	51	51	51	51	51	51	51	51	51
	23	Al-Art	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
Sargasso Sea	.9	29	30	30	46	46	46	46	46	46	46	46	46	46	46	46
	25	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
Sargasso Sea	Collection	25	26	26	43	44	45	52	52	52	52	52	52	52	52	52
	25	.4	.1	.1	.7	.4	.7	.4	.7	.4	.7	.4	.7	.4	.7	.4

Lampyranctus pusillus,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection	24	36	53	56
Slope Water		38	54	57
	0	0		68
	0	0	.1	0
	0	0		0
Collection	20	35	40	58
Ring Center	Al	Al	Dave	Em
Ring Center	20	27	42	59
	Al	Bob	Bob	Em
	20	28	49	61
	Al	Bob	Bob	Frank
	20	32	50	62
	Al	Bob	Bob	Frank
	20	39	51	65
	Al	Bob	Bob	Frank
	20	40	52	66
	Al	Bob	Bob	Frank
	20	41	53	67
	Al	Bob	Bob	Frank
	20	42	54	68
	Al	Bob	Bob	Frank
	20	43	55	69
	Al	Bob	Bob	Frank
	20	44	56	70
	Al	Bob	Bob	Frank
	20	45	57	71
	Al	Bob	Bob	Frank
	20	46	58	72
	Al	Bob	Bob	Frank
	20	47	59	73
	Al	Bob	Bob	Frank
	20	48	60	74
	Al	Bob	Bob	Frank
	20	49	61	75
	Al	Bob	Bob	Frank
	20	50	62	76
	Al	Bob	Bob	Frank
	20	51	63	77
	Al	Bob	Bob	Frank
	20	52	64	78
	Al	Bob	Bob	Frank
	20	53	65	79
	Al	Bob	Bob	Frank
	20	54	66	80
	Al	Bob	Bob	Frank
	20	55	67	81
	Al	Bob	Bob	Frank
	20	56	68	82
	Al	Bob	Bob	Frank
	20	57	69	83
	Al	Bob	Bob	Frank
	20	58	70	84
	Al	Bob	Bob	Frank
	20	59	71	85
	Al	Bob	Bob	Frank
	20	60	72	86
	Al	Bob	Bob	Frank
	20	61	73	87
	Al	Bob	Bob	Frank
	20	62	74	88
	Al	Bob	Bob	Frank
	20	63	75	89
	Al	Bob	Bob	Frank
	20	64	76	90
	Al	Bob	Bob	Frank
	20	65	77	91
	Al	Bob	Bob	Frank
	20	66	78	92
	Al	Bob	Bob	Frank
	20	67	79	93
	Al	Bob	Bob	Frank
	20	68	80	94
	Al	Bob	Bob	Frank
	20	69	81	95
	Al	Bob	Bob	Frank
	20	70	82	96
	Al	Bob	Bob	Frank
	20	71	83	97
	Al	Bob	Bob	Frank
	20	72	84	98
	Al	Bob	Bob	Frank
	20	73	85	99
	Al	Bob	Bob	Frank
	20	74	86	100
	Al	Bob	Bob	Frank
	20	75	87	
	Al	Bob	Bob	
	20	76	88	
	Al	Bob	Bob	
	20	77	89	
	Al	Bob	Bob	
	20	78	90	
	Al	Bob	Bob	
	20	79	91	
	Al	Bob	Bob	
	20	80	92	
	Al	Bob	Bob	
	20	81	93	
	Al	Bob	Bob	
	20	82	94	
	Al	Bob	Bob	
	20	83	95	
	Al	Bob	Bob	
	20	84	96	
	Al	Bob	Bob	
	20	85	97	
	Al	Bob	Bob	
	20	86	98	
	Al	Bob	Bob	
	20	87	99	
	Al	Bob	Bob	
	20	88	100	
	Al	Bob	Bob	
	20	89		
	Al	Bob		
	20	90		
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	20			
	Al	Bob		
	20			
	Al			

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection				
Slope Water	24	36 38 39	53 54	56 57 67 68
	.7	1.2 .2 .3	.2 .2	1.6 .1 0 <.1
Collection				
Ring Center	20 Al	35 27 28 Bob Bob Bob	40 Dave Bob Bob Bob Bob	58 Em Frank Frank Frank Frank Frank
Ring Center	.3	0 .1 .1 (0)	0 .1 .2 .2 0 0	0 0 2.0 .4 1.1 .2
Ring Flank	22 Al	33 Bob	51 Bob	64 Frank
Ring Flank	0	(0)	0	.1
Collection				
Ring Fringe	23 Al-Art	29 30 Bob Bob	46 Bob	
Ring Fringe	.3	.9 .8	.1	
Collection				
Sargasso Sea	25	26	43 44 45 52	63
Sargasso Sea	0	0	.2 0 0 0	.1

	Nov-Dec 76		April 77		July-Aug 77		Oct-Nov 77	
	KNORR 62		KNORR 65		ENDEAVOR 11		KNORR 71	
Slope Water	Collection							
	24		36	38 39	53 54		56 57 67 68	
Ring Center	.1		.8	.3 .5	0 0		.7 .4 0 <.1	
	Collection		35	27 28	40 42	47 48 49	58 59 61 62 65 66	
	20		Al	Bob	Dave Bob	Bob Bob	Em Frank Frank Frank Frank	
Ring Flank	0		<.1	0 .1	0 0 0 0	0 0 0 0	0 0 0 0	
	Collection		33	32	51		64	
	22		Bob	Bob	Bob		Frank	
Ring Fringe	0		(1.7)		0		.2	
	Collection		29	30	46			
	23		Bob	Bob	Bob			
Sargasso Sea	0		.1	0	0			
	Collection		25	26	43 44 45 52		63	
	0		0	0	0 .1 0 0		.1	

Nyctophum affine,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection	24	36	53	56
Slope Water		54	67	68
2.2				
			</	

Notolychnus valdiviae,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62			April 77 KNORR 65			July-Aug 77 ENDEAVOR 11			Oct-Nov 77 KNORR 71		
Slope Water	Collection 24	36	38 39	53 54			56 57 67 68					
	0	.2	.2 .2	0 0			.9 .5 .2 .1					
Ring Center	Collection 20 Al	35 Al	27 28 Bob Bob	40 42 Dave Bob	47 48 Bob Bob	50 Bob	58 59 Em Em	61 62 Frank Frank	65 66 Frank Frank			
	0	<.1	0 .1	0 0 (0)	0 0 0	0 0	0 0	.1 .3	0 0			
Ring Flank	Collection 22 Al	33 Bob		51 Bob			64 Frank					
	0	(.8)		0			<.1					
Ring Fringe	Collection 23 Al-Art	29 Bob	30 Bob	46 Bob								
	0	1.0	.7	0								
Sargasso Sea	Collection	25	26	43 44 45 52			63					
		.1	2.1	0 0 0 0			0					

Notoscopelus resplendens,
specimens/10,000 m³

	Nov-Dec 76		April 77		July-Aug 77		Oct-Nov 77	
	KNORR 62	KNORR 65	ENDEAVOR 11	KNORR 71	KNORR 71	KNORR 71	KNORR 71	KNORR 71
Slope Water	Collection 24	36	38	39	53	54	56	57 67 68
	0	0	.2	.2	0	.3	.2	1.1 .1 .2
Ring Center	Collection 20 Al	35	27	28	40	42	47	48 49 50
	1.2	Al	Bob	Bob	Dave	Bob	Bob	Bob
		3.4	0	.9	2.3	.3	.3	.2
Ring Flank	Collection 22 Al	33	Bob	Bob	51	Bob	58	59 61 62 65 66
	4.4	0					Em	Em Frank Frank Frank Frank
							4.1	4.8 .5 .4 .5 .5
Ring Fringe	Collection 23 Al-Art	29	30	Bob	46	Bob	64	Frank
	1.0	8.6	1.4		1.5		3.1	
Ring Fringe								
Sargasso Sea	Collection	25	26		43	44	45	52
		1.5	.1		.8	.9	.3	.7

Argyropelecus hemigymnus,
specimens/10,000 m³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71				
Slope Water	Collection	24	36	38	39	53	54	56	57	67	68
	1.0		1.6	.3	.5	0	0	.5	1.2	.2	.4
Ring Center	Collection	20	35	27	28	40	42	47	48	49	50
	Al	Al	Al	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Bob
	.2		.5	.1	1.1	(.6)	0	.1	.2	.1	.3
Ring Flank	Collection	22	33	30	32	51	52	58	59	61	62
	Al	Al	Bob	Bob	Bob	Bob	Bob	Em	Em	Frank	Frank
	.3		.6			.1		1.5	.3	.1	.3
Ring Fringe	Collection	23	29	30	31	46	47	64			
	Al	Al	Bob	Bob	Bob	Bob	Bob	Frank			
	0		1.5	.4	.1			1.3			
Ring Fringe	Collection	25	29	30	31	43	44	45	46	47	48
	Al	Al	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
	0		1.5	.4	.1			1.3			
Sargasso Sea	Collection	25	29	30	31	43	44	45	46	47	48
	Al	Al	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob
	1.1		1.1	1.2	.2	.3	.3	.2	.2	.2	.2
										</	

Sternoptyx diaphana,
specimens/10,000 m³

SPECIES

FISH VOLUME PER UNIT VOLUME OF WATER BY STATION,

ALL CRUISES

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	3.72	2.00 2.39 3.93	1.68 1.23	11.06 4.80 1.46 6.03	
Ring Center	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank	
Ring Flank	Collection 22 Al	.67 .04 2.15 14.29 (23.33)	.94 .58 .83 .19 1.05	.40 .93 2.86 1.47 1.12 1.10	
Ring Fringe	Collection 23 Al-Art	33 30 Bob Bob	51 46 Bob Bob	64 Frank	
Ring Fringe	Collection 23 Al-Art	.02 (4.33)	.51	.04	
Sargasso Sea	Collection 25 26	29 30 Bob Bob	43 44 45 52	63	Benthosema glaciale, ml/10,000 m ³
	0 0	0 0 0 0	0 0 0 0	0	

	Nov-Dec 76		April 77		July-Aug 77		Oct-Nov 77	
	KNORR 62		KNORR 65		ENDEAVOR 11		KNORR 71	
Slope Water	Collection							
	24		36	38 39	53 54		56 57 67 68	
	.22		.04 .01 .01		0 .04		.01 .01 .01 0	
Ring Center	Collection							
	20		35	27 28 32	40 42 47 48 49 50		58 59 61 62 65 66	
	Al		Al Bob Bob Bob Bob Bob Bob		Dave Bob Bob Bob Bob Bob Bob		Em Frank Frank Frank Frank Frank	
	.01		<.01 .01 .07	(0)	0 0 0 0 0 0		0 .01 .04 0 .04 .04	
Ring Flank	Collection							
	22		33	Bob	51		64	
	Al		Bob		Bob		Frank	
	.02		(.08)		.01		0	
Ring Fringe	Collection							
	23		29	30	46			
	Al-Art		Bob Bob		Bob			
	.03		.07 .03		0			
Sargasso Sea	Collection							
			25	26	43 44 45 52		63	
			0 0		.01 0 .01 0		.01	

Benthosema suborbitale,
ml/10,000 m³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
	Collection							
Slope Water	24	36	38	39	53	54	56	57 67 68
	.07	.01	.03	.02	.01	.01	.06	.01 .01 <.01
Ring Center	Collection	35	27	28	40	42	58	59 61 62 65 66
	20	Al	Bob	Bob	Dave	Bob	Em	Em Frank Frank Frank Frank
	<.01	.14	.01	.06 (0)	.03	.01	.08	.29 .04 .14 .10 .01
Ring Plank	Collection	33			51		64	
	22	Bob			Bob		Frank	
	.54	(.17)			.22		<.01	
Ring Fringe	Collection	29	30		46			
	23	Bob	Bob		Bob			
	.24	.18	.06		.02			
Sanquassio Sea	Collection	25	26		43	44	63	
		0	.35		.03	.01	.09	

Bolinichthys indicus,
ml/10,000 m³

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
Collection 24 Slope Water		36	38 39	53 54	56 57 67 68		
		.01	.04 .04	0 .01	0 0 .02 0		
Collection 20 AI		35	27 28 32	40 42 47 48 49	58 59 61 62 65 66		
		AI	Bob Bob Bob	Dave Bob Bob Bob Bob	Em Em Frank Frank Frank Frank		
Collection 22 AI		0	0 0 .02 (0)	0 0 0 0 0	0 0 0 0 0		
Collection 23 AI-Art		33	33 Bob	51 Bob	64 Frank		
		(0)	(0)	0	0		
Collection 29 30 Bob Bob		29	30 Bob	46 Bob			
		.01	0	0			
Collection 25 26		25	26	43 44 45 52	63		
		0	0	0 0 0 0	0		
Sargasso Sea		Diaphus dumerilii, ml/10,000 m ³					

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	0	0 0 0	0 .58	0 0 0 0	
Ring Center	Collection 20 Al	35 27 28 Al Bob Bob	40 42 Dave Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank	
	0	0 1.99 0 (0)	.01 0 0 .56 0 0	0 .01 2.02 .15 .33 0	
Ring Flank	Collection 22 Al	33 Bob	51 Bob	64 Frank	
	.02	(12.42)	0	.01	
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 Bob		
	17.40	.92 .07	0		
Sargasso Sea	Collection 25	25 26	43 44 45 52	63	
	0	0 .17	0 0 0 0	0	
					Diaphus effulgens, ml/10,000 m ³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	0	.03 .04 .02	0 0	0 0 1.08 0	
Ring Center	Collection 20 Al	35 27 28 Al Bob Bob	40 42 Dave Bob Bob	58 59 61 62 65 66 Em Frank Frank Frank Frank	
	<.01	.22 0 0 (0)	0 0 0 0 0 0	0 0 .90 0 1.07 .47	
Ring Flank	Collection 22 Al	33 Bob	51 Bob	64 Frank	
	.99	(1.58)	0	1.17	
Ring Fringe	Collection 25 Al-Art	29 30 Bob Bob	46 Bob		
	.27	0 0 0	0		
Sargasso Sea	Collection	25 26	43 44 45 52	63	
		.01 0	0 0 0 0	0	
					Diaphus rafinesquii, ml/10,000 m ³

	Nov-Dec 76 KNORR 62			April 77 KNORR 65			July-Aug 77 ENDEAVOR 11			Oct-Nov 77 KNORR 71		
Collection	24	36	38	39	53	54	56	57	67	68		
Slope Water		.04	.01	.01	.01	.01	.02	.01	.01	<.01		
Collection	20	35	27	28	40	42	47	48	49	50		
Ring Center	Al	Al	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Bob		
Ring Frank		.01	.04	0	.01	.01	.01	0	0	.01	0	
Collection	22	33	51	51	64	64	64	64	64	64		
Ring Fringe	Al	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob		
Ring Fringe		.01	(0)	(0)	.03	.03	.04	.03	.01	0	0	
Collection	23	29	30	30	46	46	46	46	46	46		
Ring Fringe	Al-Art	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob	Bob		
Ring Fringe		.01	.09	0	.02	.02	.02	.02	.02	.02		
Collection	25	25	26	26	43	44	45	45	45	45		
Sargasso Sea		.01	.01	.03	.05	.01	.02	.01	.01	.01	0	
Sargasso Sea												
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	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71						
Slope Water	Collection 24	36	38	39	53	54	56	57	67	68
	.06	.01	<.01	.01	.01	.03	.08	.01	.06	.04
Ring Center	Collection 20	35	27	28	40	42	47	48	49	50
	Al	Al	Bob	Bob	Dave	Bob	Bob	Bob	Bob	Bob
	.53	.04	0	.37	0	.02	.01	.01	0	.01
					(0)					
Ring Flank	Collection 22	33			51		64			
	Al	Bob			Bob		Frank			
	.26	(0)			.02		.05			
Ring Fringe	Collection 23	29	30		46					
	Al-Art	Bob	Bob		Bob					
	0	.01	.01		.02					
Sargasso Sea	Collection	25	26		43	44	45	52		
		0	0		.01	.01	.01	.01		
			</							

lygophum benoiti,
ml/10,000 m³

63

.12

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
Slope Water	Collection						
	24	36	38 39	53 54	56 57 67 68		
	0	.71	.65 .80	0 0	1.06 0 0 0		
Ring Center	Collection						
	20	35	27 28	40 42	48 49 50	58 59 61 62 65 66	
	Al	Al	Bob Bob	Dave Bob Bob	Bob Bob Bob	Em Frank Frank Frank Frank Frank	
	0	.07	.10 3.20 (3.50)	0 .12 0	0 .12 0	.43 0 1.43 .13 0	
Ring Flank	Collection						
	22	33		51		64	
	Al	Bob		Bob		Frank	
	0	(2.00)		.07		0	
Ring Fringe	Collection						
	23	29	30	46			
	Al-Art	Bob	Bob	Bob			
	.09	.29	.39	0			
Sargasso Sea	Collection						
	25	25	26	43 44 45 52	63		
		.18	.34	.02 .01 .14 0	0		

lygophum hygomi,
ml/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	.45	.07 .06 .01	0 .04	.27 .06 0 .09	
King Center	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob	58 59 61 62 65 66 Lim Em Frank Frank Frank Frank	
King Flank	Collection 22 Al	0 .05 .34 (0)	0 .11 .25 .02 .08 0	0 .04 .16 .60 .33 .12	
King Fringe	Collection 23 Al-Art	33 30 Bob Bob	51 46 Bob Bob	64 Frank	
King Fringe	<.01	(0) .07 .03	.01 .10	<.01	
Sargasso Sea	Collection	29 26	43 44 45 52	63	
		.01 0	.02 0 0 0	0	
					<i>Lampyctes alatus</i> , ml/10,000 m ³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection	24	36	38	39
Slope Water		53	54	56
	.01	.45	0	0
		.10	.03	.16
				.54
				.53
				.13
Collection	20	35	27	28
Al	Al	Al	Bob	Bob
		40	42	48
		Dave	Bob	Bob
		50	50	50
		58	59	61
		Em	Em	Em
		Frank	Frank	Frank
		66	65	66
Collection	22	33	33	32
Al	Al	Bob	Bob	Bob
		51	51	51
		Bob	Bob	Bob
		.03	.03	.04
		(.08)		
Collection	23	29	30	30
Al-Art	Al-Art	Bob	Bob	Bob
		.13	.02	.04
Collection	25	25	26	26
	.07	.07	.16	.02
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Lampanyctus crocodilus,
ml/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Collection	24	36 38 39	53 54	56 57 67 68	
Slope Water	.02	.06 .33 0	0 .08	.37 .41 .28 .07	
Collection	20	35 27 28 32	40 42 47 48 49 50	58 59 61 62 65 66	
Ring Center	Al	Al Bob Bob Bob Bob Bob	Dave Bob Bob Bob Bob Bob	Em Frank Frank Frank Frank Frank	
Ring Fringe	.28	.18 0 .13 (0)	0 0 0 0 0 0	.10 .14 0 .02 0 .03	
Collection	22	33	51	64	
Ring Flank	Al	Bob	Bob	Frank	
Ring Fringe	0	(0)	0	.21	
Collection	23	29 30	46		
Ring Fringe	Al-Art	Bob Bob	Bob		
Ring Fringe	.20	3.86 .16	.01		
Collection	25	26	43 44 45 52	63	
Sargasso Sea	.02	.19	.05 .12 .28 0	1.45	

Lampanyctus cuprarius,
ml/10,000 m

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection	24	36	38	39
Slope Water		53	54	56
	.05	.04	0	.01
		.01	.11	.01
				<.01
Collection	20	35	27	28
Al	Al	Al	Bob	Bob
		32	40	42
		Bob	Dave	Bob
			0	0
	.05	0	0	0
Ring Center		(0)	0	0
			0	0
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Lampanyctus photonotus,
ml/10,000 m³

Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
Slope Water	Collection						
	24	36	38 39	53 54		56 57 67 68	
Slope Water	0	.01	<.01 0	.01 .11		.07 .01 0 .04	
Ring Center	Collection						
	20	35	27 28	40 42	47 48 49 50	58 59 61 62 65 66	
	Al	Al	Bob	Dave Bob	Bob Bob Bob Bob	Em Frank Frank Frank Frank	
Ring Flank	29	.14	.01 0	.01 .19	.03 .02 .19	.32 .41 .21 .71 .45 .22	
Ring Fringe	Collection						
	22	33	22	51		64	
	Al	Bob	Bob	Bob		Frank	
Ring Fringe	27	(.25)		.02		.10	
Sargasso Sea	Collection						
	23	29	30	46			
	Al-Art	Bob	Bob	Bob			
Sargasso Sea	19	.29	.09	.03			
Sargasso Sea	Collection						
	25	25	26	43 44 45 52		63	
		.02	.01	.05 .03 .03 .05		.14	

Lampanyctus pusillus,
ml/10,000 m³

AD-A084 999

WOODS HOLE OCEANOGRAPHIC INSTITUTION MASS

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MIDWATER FISH DATA REPORT: COLD CORE RINGS TIME SERIES CRUISES --ETC(U)

MAR 80 R H BACKUS, J E CRADDOCK

N00014-79-C-0071

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WHOI-80-18

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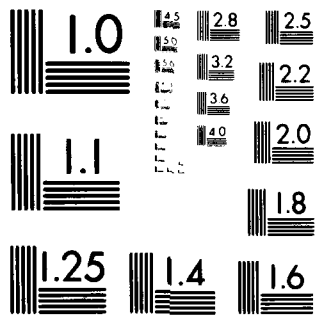
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71
Collection	24	36	38	39
Slope Water		53	54	56
	0	0	0	0
		0	.01	0
Collection	20	35	27	28
Al	Al	Al	Bob	Bob
		32	40	42
		Bob	Dave	Bob
		Bob	Bob	Bob
		49	50	58
		Bob	Bob	Em
		50	59	61
		Bob	Em	Frank
		66	62	65
		Frank	Frank	Frank
		Frank	Frank	Frank
		0.01	0.01	0.01
Collection	22	33	30	30
Al	Al	Bob	Bob	Bob
		51	52	53
		Bob	Bob	Bob
		0.01	0.01	0.01
Collection	23	29	30	30
Al-Art	Al-Art	Bob	Bob	Bob
		46	47	48
		Bob	Bob	Bob
		0.08	0.08	0.08
Collection	25	26	27	28
Sargasso Sea		63	64	65
	0	0.07	0.07	0.07
		0.14	0.14	0.14
		0.03	0.03	0.03
		0.02	0.02	0.02
		0.03	0.03	0.03
		0.06	0.06	0.06
		0.01	0.01	0.01
		0.03	0.03	0.03
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		0.03	0.03	0.03
		0.01	0.01	0.01
		0.03	0.03	0.03
		0.01	0.01	0.01
		0.03	0.03	0.03
		0.01	0.01	0.01
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		0.01	0.01	0.01
		0.03	0.03	0.03
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		0.01	0.01	0.01
		0.03	0.03	0.03
		0.01	0.01	0.01

Lepidophanes gaussi,
ml/10,000 m³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
	Collection		Collection		Collection		Collection	
Slope Water	24		36	38 39	53 54	56 57 67 68		
	.08		.02 .01 .01		.01 .01	.01 .01 .01 <.01		
Ring Center	20		35 27 28 32		40 42 47 48 49 50	58 59 61 62 65 66		
	Al		Al Bob Bob Bob Bob Bob		Dave Bob Bob Bob Bob Bob	Em Em Frank Frank Frank Frank		
	.01		.01 .01 .05 (0)		.02 .02 .01 .01 .01 .02	.01 .01 .05 .03 .02 .02		
Ring Flank	22		33		51	64		
	Al		Bob		Bob	Frank		
	.07		(.08)		.04	.02		
Ring Fringe	23		29 30		46			
	Al-Art		Bob Bob		Bob			
	.02		.12 .03		.01			
Sargasso Sea	25		25 26		43 44 45 52	63		
			.02 .10		.04 .02 .01 0	.01		

Notolychmus valdiviae,
ml/10,000 m³

	Nov-Dec 76 KNORR 62			April 77 KNORR 65			July-Aug 77 ENDEAVOR 11			Oct-Nov 77 KNORR 71		
	Collection	24		36	38	39	53	54		56	57	68
Slope Water		0		.06	.16	.04	0	0		1.28	.73	.34
Ring Center	Collection	20		35	27	28	40	42		58	59	61
	Al	Al		Al	Bob	Bob	Dave	Bob		Em	Em	Frank
Ring Fringe		0		.04	0	.05	0	0		0	0	0
						(0)				.35	.35	0
Ring Fringe	Collection	22		33			51			64		
	Al-Art	Al		Bob			Bob			Frank		
Sargasso Sea		0		(.08)			0			.06		
Sargasso Sea	Collection	23		29	30		46					
		Al-Art		Bob	Bob		Bob					
Sargasso Sea		0		.14	.09		0					
Sargasso Sea	Collection	25		25	26		43	44		63		
				.01	.29		0	0		0		
Sargasso Sea												

Notoscopecus resplendens,
ml/10,000 m³

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
	Collection		Collection		Collection		Collection	
Slope Water	24		36	38 39	53 54		56 57 67 68	
	0		0	.02 .01	0	.02	.05 .09 .08 .16	
Ring Center	Collection		35	27 28 32	40 42 47 48 49		58 59 61 62 65 66	
	20		Al	Bob Bob Bob Bob Bob	Dave Bob Bob Bob Bob Bob		Em Frank Frank Frank Frank Frank	
	.14		.57	0 .23 (0)	.21 .05 .01 .08 .01 .02		.18 .38 .03 .06 .01 .01	
Ring Flank	Collection		33	Bob	51	Bob	64	Frank
	22		0		.03		.22	
Ring Fringe	Collection		29	30 30	46	Bob		
	23		Bob	Bob Bob				
	.08		.50	.31	.01			
Sargasso Sea	Collection		25	26	43 44 45 52		63	
			.29	.03	.06 .03 .02 .02		.23	

Argyroleleucus hemisymus,
ml/10,000 m

	Nov-Dec 76 KNORR 62		April 77 KNORR 65		July-Aug 77 ENDEAVOR 11		Oct-Nov 77 KNORR 71	
	Collection		Collection		Collection		Collection	
Slope Water	24		36	38 39	53 54		56 57 67 68	
	.79		.73 .39 .61		0 0		.30 1.06 .13 .20	
Ring Center	20		35	27 28 32	40 42	47 48 49	58 59 61 62 65 66	
	Al		Al Bob Bob Bob		Dave Bob Bob Bob	Bob Bob Bob	Em Frank Frank Frank Frank	
	.02		.16 .05 .55 (.61)		0 0 0	.01 .14 .04 .20	.49 .12 .02 .13 0 .01	
Ring Flank	22		33		51		64	
	Al		Bob		Bob		Frank	
	.30		.18		.01		.64	
Ring Fringe	23		29	30	46			
	Al-Art		Bob Bob		Bob			
	0		1.25 .54		.01			
Sargasso Sea	25	26	43 44 45 52		63			
	.43 .68		.05 .08 .03 .05		.96			

Sternoptyx diaphana,
ml/10,000 m³

	Nov-Dec 76 KNORR 62	April 77 KNORR 65	July-Aug 77 ENDEAVOR 11	Oct-Nov 77 KNORR 71	
Slope Water	Collection 24	36 38 39	53 54	56 57 67 68	
	7.08	15.48 .71 7.43	1.09 .59	.94 4.59 0 .65	
Ring Center	Collection 20 Al	35 27 28 32 Al Bob Bob Bob	40 42 47 48 49 50 Dave Bob Bob Bob Bob Bob	58 59 61 62 65 66 Em Em Frank Frank Frank Frank	
	1.53	.22 5.23 13.00 (27.00)	0 1.35 .12 .93 0 0	6.82 3.63 4.91 1.29 .90 3.57	
Ring Flank	Collection 22 Al	33 Bob	51 Bob	64 Frank	
	1.60	.79	0	.77	
Ring Fringe	Collection 23 Al-Art	29 30 Bob Bob	46 Bob		
	.08	.69 1.02	0		
Sargasso Sea	Collection	25 26	43 44 45 52	63	
	0	.15	0 0 2.59 0	.02	
					Gonostoma elongatum, m1/10,000 m ³

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